STRUCTURAL CHANGE, FOREIGN POLICY AND WAR

by

BROCK FRANKLIN TESSMAN

B.A., Brown University, 1998

M.A., University of Colorado at Boulder, 2001

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written by Brock Franklin Tessman
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(Steve Chan)

(David Leblang)

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Tessman, Brock Franklin (Ph.D., Department of Political Science)

Structural Change, Foreign Policy and War

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In this dissertation, I present a theoretical and methodological approach that contributes to, and improves upon our current understanding of interstate conflict in the global arena. From a theoretical standpoint, I reshape and extend Charles Doran's power cycle theory of international politics (Doran 1971, 1989, 1991, 2003; Doran and Parsons 1980) in order to develop an explanation of war that accounts for important causal variables at the systemic, state and individual levels of analysis. I use a triangulated research design to test my theoretical propositions in diverse settings. This ensemble incorporates a statistical analysis of interstate capability and conflict data between 1816 and 2001, a detailed case study of the 1905 Moroccan Crisis, and findings from a series of classroom simulations. Generally, this dissertation leads to the evolution of power cycle theory as a cogent link between structural change, foreign policy and war. Specifically, three primary goals are accomplished via a strategy of methodological triangulation:

1) The fundamental and existing assertions of power cycle theory are confirmed in a statistical analysis and case study.

2) The logic of the theory is extended to address additional phenomena such as deterrence encounters (again via statistical analysis) and is also successfully applied to data from a series of classroom simulations. Extension

is also achieved via a set of sensitivity tests and insights gained after power cycle theory is integrated with prospect theory and the democratic peace hypothesis.

3) A more substantial and compelling link between the structural presence of critical points and the decision to go to war is established with qualitative, individual level analysis of both the simulations and the case study.

So many thanks:

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"Tears ran over his old face, but he was unaware of them; the feeling of deepest love, of humblest veneration burned in his heart like a fire. He bowed low, down to the ground, bowed to the motionless sitter, whose smile reminded him of everything that he had ever loved in his life, that had ever been valuable and holy to him in his life" (Herman Hesse).

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CHAPTER I

INTRODUCTION

In this dissertation, I present a theoretical and methodological approach that contributes to, and improves upon our current understanding of interstate conflict in the global arena. From a theoretical standpoint, I reshape and extend Charles Doran's power cycle theory of international politics (Doran 1971, 1989, 1991, 2003; Doran and Parsons 1980) in order to develop an explanation of war that accounts for important causal variables at the systemic, state and individual levels of analysis. I use a triangulated research design to test my theoretical propositions in diverse settings. This ensemble incorporates a statistical analysis of interstate capability and conflict data between 1816 and 2001, a detailed case study of the 1905 Moroccan Crisis, and findings from a series of classroom simulations. Generally, this dissertation leads to the evolution of power cycle theory as a cogent link between structural change, foreign policy and war. Specifically, the following analyses result in four baskets of findings:

First, statistical analyses of updated data confirm the positive correlation between critical points on a state's relative capability cycle and that state's propensity to participate in, initiate and escalate interstate war as well as deterrence encounters. Between 1816 and 2001, major powers are more than twice as likely to participate in interstate war during years that are located within critical periods than they are during years that fall outside of these critical periods. These same powers are more than

three times as likely to initiate interstate war during critical periods as they are at other times. With respect to deterrence encounters, rates of participation and initiation are, respectively, 130 percent and 250 percent higher during critical periods than during non-critical periods.

Second, by integrating the logic of power cycle theory with both prospect theory and the democratic peace hypothesis, I associate different types of critical points with varying levels of risk propensity and also suggest that democracies are more immune to the pitfalls of critical points than are their autocratic counterparts. Specifically, critical points that are likely to place leaders in the domain of loss are shown to be associated with higher rates of conflict behavior than are those critical points that place leaders in the domain of gain. Still, all kinds of critical points generate conflict higher rates of conflict behavior than that which occurs during "normal" years. This finding is robust across all four independent variables under analysis (interstate war participation, interstate war initiation, deterrence participation and deterrence initiation). Across these four measures, and regardless of critical point type, democratic leaders are found to be less susceptible to the conflict-intensifying effect of critical points than are key officials in non-democracies.

The third set of findings are formulated from a detailed case study of British, German and French leaders during their confrontation in Morocco in the years leading up to the First World War. Historical accounts, personal memoirs and diplomatic documents relate the Moroccan Crisis as an event best understood through

a power cycle framework which links conflict to causal conditions at three different levels of analysis:

1) *Multilateral capability shifts at the systemic level of analysis:* For leaders in all three states, foreign policy attention is found to focus on complex, multilateral shifts in relative power, rather than simple changes in the bilateral power ratios between two countries. In the case of Germany, for example, Kaiser Wilhelm and Chancellor Bernhard von Bulow were not as optimistic with their growing strength vis-à-vis Great Britain in 1905 as they were anxious in regards to their suddenly slowed growth in the global system that resulted from the rapid growth of the United States, Japan and most importantly, Russia.

2) *Tension between relative power and desired international role at the state level of analysis:* Foreign policy decisions are motivated by the desire to expand upon, or resist contraction of, current levels of prestige and influence in the international system. In the case of the Moroccan Crisis, conflict emerges as a result of German attempts to increase its say in the colonial – and global – arena, as well as reluctance on behalf of the French and British to reduce their own relative influence in these areas.

3) *The emotional and cognitive trauma of a critical point at the level of the individual decision maker:* The fourth and final set of conclusions stem from both the case study as well as qualitative and quantitative analysis of data from four separate classroom simulations. During the years surrounding the Moroccan Crisis of 1905, the behavior of Kaiser Wilhelm and King Edward VII differed greatly from that of

prominent French officials such as Foreign Minister Theophile Délcassé. Because Britain and Germany were experiencing critical points and France was not, the emotional state of British and German leaders is characterized by more anxiety, mistrust, suspicion, uncertainty, and overconfidence than their French counterparts. In the simulations, students acted as government leaders of imaginary countries that - according to both their behavior and written reports – exhibited higher levels of bellicosity when their country was passing through a simulated "critical period." Quantitative data from the simulation show that countries were more likely to participate and initiate war when they were passing through critical points that they were in remaining times. In addition, written reports and diplomatic communication from the simulation mimics the trends found in the memoirs and historical records pertaining to the Moroccan Crisis. In short, data from a simulated international system support the assumptions of power cycle theory in much the same way as data from the quantitative analysis and case study.

Theoretical Background

Power cycle theory is unique because it offers a compelling explanation for the complex relationship between patterns of structural change in the international system, the formulation of foreign policy within states, and the decisions made by individual leaders that often result in war. Any successful theory of international conflict will simultaneously address issues at the systemic, state and individual levels

of analysis. Unfortunately, most of the existing international conflict literature is rooted in a single level of analysis. For example, balance of power theories (Kissinger 1957; Deutsch and Singer 1964; Bremer and Stuckey 1972; Waltz 1964, 1979; Wohlforth 1991), not only disagree about the relationship between polarity and war, but they also fail to recognize the importance of factors that are packaged within what they see as the unitary and rational states. Conversely, traditional expected utility (Bueno de Mesquita 1981), perceptual-cognitive (Janis 1972; Jervis 1979) and personality (Hermann 1974, 1980) studies often fail to address the structural context within which individual decision makers operate.[1] Still others address the link between dyadic power transitions and the outbreak of large-scale war (Organski 1958; Organski and Kugler 1980; Tammen et al 2000). These theorists fail to address changing capability in a multilateral context, however, and thus simplify international politics as a competition between two rival powers when, in reality, foreign policy decisions are more likely motivated by power shifts among several major powers. In

[1] Some scholars who do look inside the "black box" of the state also see war as the result of a rational analysis(Bueno De Mesquita 1981; Bueno De Mesquita and Lalman 1992; Fearon 1995; Slantchev 2003). Power cycle theory, however, asserts that large scale wars are the result of a decision-making process that includes at least some element of non-rationality. As Fearon (1995) shows, in almost every case states will achieve a higher expected utility through some sort of negotiated outcome than they will through war. War is, *ex-post facto*, an inefficient outcome. Fearon goes on to show that rational states might still go to war under "special" circumstances (the most likely of which is the existence of private information). Doran argues, however, that a more likely explanation is simply that states (and leaders) do not always make rational decisions. Specifically, the presence of a critical period results in an abrupt and sudden change in the decision-making environment. This immense upheaval in foreign policy goals, projections, and power means that the conditions for rational policy-making cease to exist. In making this argument, Doran aligns power cycle theory with "non-rational" models of war initiation(George 1971; Jervis 1976; Snyder 1977; Hermann 1980; Tetlock and Peterson 1986; Jervis 1988; Jervis 1989; Maoz 1990; Levy 1992; McDermott 1992; Hermann and Preston 1994; Levy 2000). It is the ability of power cycle theory to integrate structural change and a non-rational model of decision-making that makes it unique. It succeeds in bridging the gulf between, at the very least, two levels of analysis (structural and individual) that are typically treated with mutual exclusivity.

summary, some research programs are myopic, focusing on the particular nuances or preferences of a few influential leaders. Others are excessively broad and simplistic in their reliance on general power ratios between a pair of states. As a result, we are left with "islands of findings" (Cashman 1993; Vasquez 2000). Power cycle theory, though by no means representing a unified theory of international politics, successfully bridges these islands by linking micro and macro levels of analysis to provide a more holistic explanation of conflict behavior in the international system.[2] Philosopher of science Mario Bunge captures this idea:

> "The alternative to both individualism and holism is systemism, since it accounts for both individual and system and, in particular, for individual agency and social structure. Indeed, systemism postulates that everything is a system or a component of one" (Bunge 1996, 149).

Thus, power cycle theory achieves a high level of relevance by allowing policymakers to: 1) Identify the kinds to systemic changes that serve as fertile ground for conflict, 2) Target the specific states that are likely to experience upheaval as a result of this systemic change, and 3) Prescribe diplomatic, economic and military doctrines that will help leaders in the target country(s) and the rest of the system adjust to systemic change in a peaceful manner.

Power cycle theory is about the rise and decline of states in the international system. While the original theory dealt solely with the handful of countries belonging to the major power system, recent work (Parasiliti 2003; Geller 2003; Kumar 2003)

[2] This linkage between macro and micro levels of analysis has been labeled "systemism" by Bunge (1986). James and Lusztig (2003) explore power cycle theory and systemism in relation to American attitudes toward NAFTA.

shows that the principles of power cycles apply to both global and regional powers in the international system. At any given point in time, the capabilities of these states are expanding and contracting at different rates. When changing national capabilities are compared, each country finds itself to be at any given moment gaining, losing, or maintaining its power position relative to its counterparts. Doran and Parsons (1980) demonstrated that, over time, each state traverses a relative power cycle that includes a period of growth, maturation, decline and then rebirth.

A fundamental argument of power cycle theory is that relative *power* is but a means for achieving a significant *role* in the system. "Role" can be thought of in the abstract as international prestige and influence, and tangibly as cultural influence or clout in various international organizations.

> "Role amounts to more than power position, or place, within the international system, although role encompasses these considerations. Role suggests informally legitimated responsibilities and prerequisites associated with position and place. Role involves the extent of leadership or followership, the capacity to extend security to others or the dependence upon external security; whether a state is an aid-giver or recipient, a lender or a net debtor; whether the state is sought after for counsel or is disregarded; and whether the state is an overachiever or a comparative non-participant in the affairs of the system" (Doran 1991, 30-31).

It is important to understand that role is a systemic phenomenon. While governments may announce and plan for a particular *declared* role, the perceptions and expectations of other states in the system are equally vital in *ascribing* a specific role to any one country (Lahneman 2003).

> "Role is determined not solely by power, or by national capability that underlies power. It is determined also by the tradition of international political involvement and the record concerning how power has been used. And it is determined, in the absence of an actual exercise of power, by how other governments respond to the state because of its power or prestige" (Doran 1991, 30-31).

Leaders do not amass huge armies or nuclear weapons because those acts are inherently satisfying. Instead, these (and other) forms of power are used as instruments to accomplish a particular goal.

Importantly, international role and relative power rarely rise and decline in tandem. For example, a state that is growing quickly in terms of relative power will often find that its role in the system grows at a much slower pace. This is because international role, like relative power, is zero-sum. By definition, one country's relative growth dictates the relative decline of another. There is a constant ebb and flow of role surplus and deficit between the great powers in the system. At the same time one rising power is clamoring for a higher level of influence and prestige, another declining state is desperately protecting the status it earned during the peak of its relative power cycle. Despite a shrinking share of system power, declining states will be reluctant to accept a diminished role in the global community. Client states that depend on the declining power will also resist calls for any contraction of that power's leadership position. This dynamic leads to extensive gaps between the *role* a state hopes to achieve or maintain in the international system and the amount of prestige and influence that state's relative *power* substantiates. Growing states

typically have a *role deficit* when compared to power, while declining states have a *role surplus*. Gaps between actual power and desired role are the primary source of international tension, and are a latent source of conflict between states.

Still, the struggle for prestige and influence is usually not enough to make leaders decide upon war as a favorable policy option. Growing states, though frustrated, count on a brighter future because they assume their relative capability in the system will continue to expand. Officials in these countries may intentionally delay any calls for an expanded role in the system because they believe that their bargaining position vis-à-vis other major powers will continue to improve over time. Consequently, declining states are not likely to face much pressure to take a "backseat" in international politics via a reduced role in the system. As long as countries rise and decline in a linear and predictable manner, the system is able to gradually adapt, and tension is constrained as leaders are able to seek negotiated outcomes to conflict that almost always generate a higher payoff for all parties involved (Fearon 1995). Clever statecraft can also suppress frustration over power-role gaps as long as the security of the affected states is not threatened. The peaceful transfers of prestige and influence in the Western Hemisphere from Britain to the United States in the late 19th century serve as a positive example of systemic adjustment to various power-role disequilibria.

How, then, are gaps between power and role crucial for understanding the outbreak of war? The key is to understand that abrupt, non-linear changes in relative capability trends generate immediate uncertainty and potentially conflicting emotions

that exacerbate the tension of existing gaps between power and role. The theory of power cycles argues that gaps between desired role and actual capability generate frustrations that are especially acute at certain "critical" locations in each state's relative power trajectory. At these points in history, conflict resulting from power-role gaps is more likely to boil to the surface, and be perceived by leaders as the kind of existential threats that require violent action.

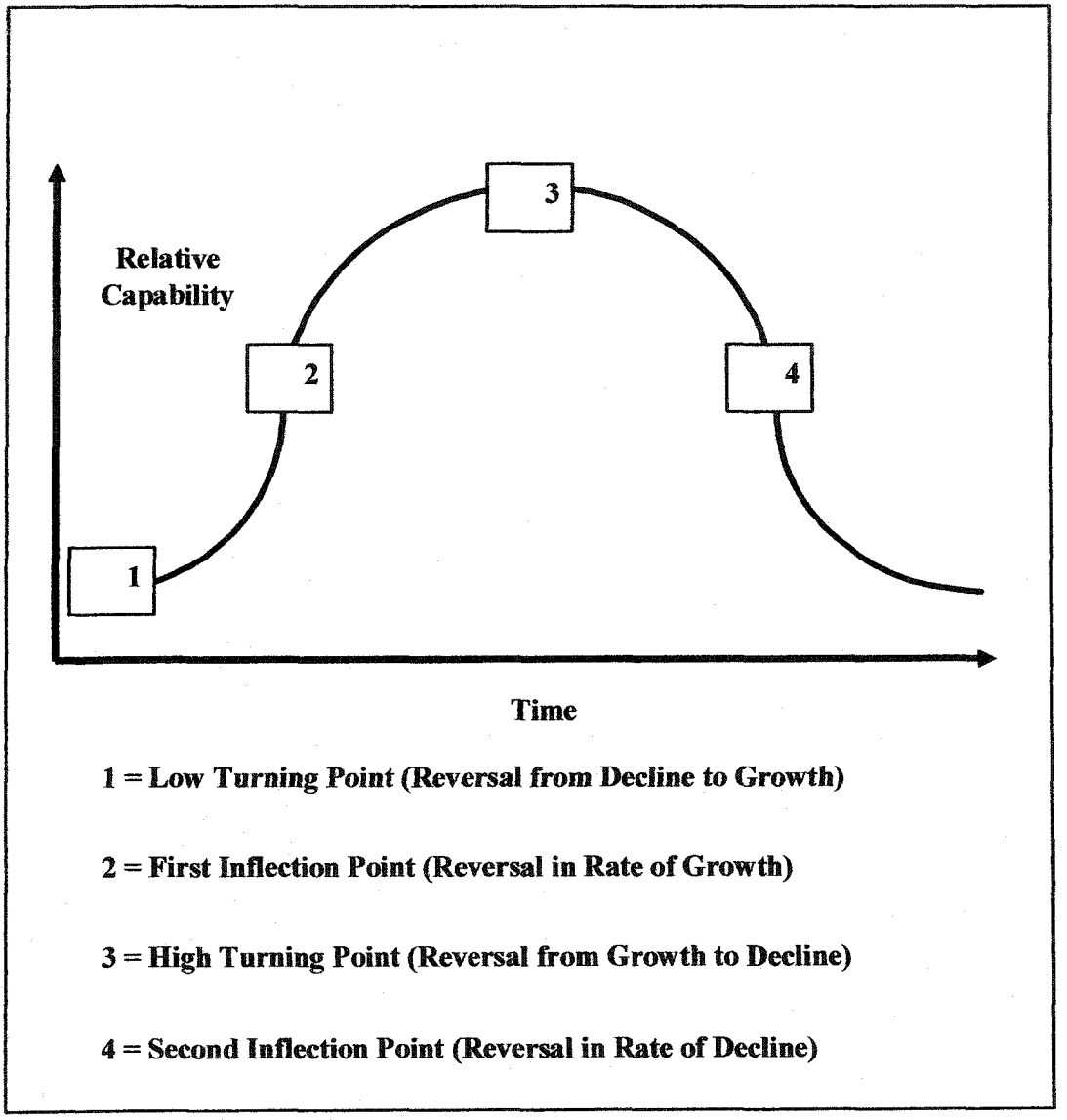
It is vital to remember that, for any country, changes in *relative* power often differ from changes in *absolute* power. Even if a state is experiencing growth in absolute terms, it may still be losing power relative to other faster growing states. It is possible that, in Charles Doran's words: "In the hour of its greatest achievement, the state is driven onto unexpected paths by the bounds of the system. The tides of history have suddenly and unexpectedly shifted against it" (Doran 2000). Thus, a leading state's relative position in the great-power system can be drastically affected by the rise or fall of far lesser states. The interdependence of these states often produces unpredictable and drastic changes in their relative power cycle, which are a result of each state's own growth rate as well as those of its counterparts. This emphasis on the multilateral nature of relative capability shifts is a primary difference between power cycle theory and power transition theory, which it is often associated with. [3]

[3] On the surface, power cycle theory seems a close cousin to the other structural-cyclical theories of war (Organski 1958; Organski and Kugler 1980; Gilpin 1981; Kennedy 1987; Modelski 1987; Modelski 1987; Modelski 1987; Modelski and Thompson 1987; Thompson 1988; Rasler and Thompson 1994; Modelski and Thompson 1996; Rasler and Thompson 2000). However, the key to power cycle theory – and what separates it from strictly structural-cyclical theories of war – is the emphasis on the foreign policy decision-making process that takes place within states. By not discounting the intricacies of this process, power cycle theory provides a more complete explanation of

Figure 1 depicts a generic relative power cycle and the critical points hypothesized to exacerbate tension existing over power-role gaps. At the low and high turning points (L and H), a state is poised to enter a phase during which the *direction* of its capability change will be reversed. At the two inflection points (I_1 and I_2), it faces an inversion from its previous *rate* of change. Significantly, the turning points indicate a reversal in the direction of change whereas the inflection points indicate a change in velocity – as distinct from the absolute magnitude of change in either level or speed. Each of these four junctures presents difficult situations for formulating foreign policy. Officials are presented with an unexpected reversal, challenging those assumptions that have previously guided their decisions. At the first inflection point for example, leaders that once viewed the future with unbridled optimism are suddenly forced to reckon with a new reality of lower growth rates and constrained ascendance in the international system. At this point (and at the other critical points) reconciling the power-role gap proves increasingly important for leaders interested in their national security. Under extreme uncertainty, conflicts over the power-role gap that may have been dismissed at other times suddenly present themselves as existential threats that may warrant military action. The future is clouded in uncertainty and, for a state experiencing downward mobility (in terms of either direction or rate), fraught with the alarming prospect of a deteriorating bargaining position in relation to other states. At the same time, critical points that

war than does it strictly structural brethren. For example, power transition theory, hegemonic stability theory and long cycle theory all assume that the state is a unitary, rational actor. According to these theories, major war emerges from an opaque, rational, cost-benefit analysis; the outcome of which is determined by the structure of the international system.

Figure 1: A Generic Relative Capability Cycle



indicate upward mobility (L and I_2) are likely to generate what Charles Doran calls "delusions of grandeur." After an extended period of decline, officials in these states are pleased with their new, improving position in the system. Given the drastic and upward swing in their projections, they are suddenly less willing to give up any of their international role without a fight. The chance to "regain lost prestige" is tempting, even if the country is still in relative decline (I_2), or possesses its lowest share of international power in quite some time (L). Furthermore, at these times leaders are less willing to relinquish their existing influence than they would be during gloomier times. In a sense, these two critical points (I_2 and L) generate a greater loss aversion for leaders. It is this kind of dynamic that caused British leaders (experiencing the second inflection point in 1905) to be so confrontational when challenged for influence in Africa and Europe by the Germans during Moroccan Crisis.

The sudden and massive reversals of a critical point generate a set of emotional reactions that go well beyond a calculated response to inverted power projections. Long-held belief systems are challenged and – in a very short period of time – totally discredited. Leaders must grapple with an entirely new reality. This new reality indicates that the "tides of history" are shifting for their country. Depending on the kind of critical point being experienced, these shifting tides can induce a kind of emotional trauma that leads to rash and aggressive attempts to increase international role or an exceedingly stubborn refusal to cede influence in the foreign policy arena. The theory of power cycles clearly expects leaders to be most susceptible to

miscalculations at the critical points. They may react impulsively or opportunistically to the new environment. Seemingly opposite emotions (e.g., arrogance and anxiety, overconfidence and panic) can coexist. As an illustration, consider the case of Germany during the early years of the 20th century. With their country having just passed the high turning point of the relative power cycle, German leaders was forced to come to grips with the sudden reality of imminent decline (especially in comparison to Russia) at the same time they were seeking to capitalize on a peak in relative power share vis-à-vis the rest of the system (and particularly Britain). The resulting grand strategy was *Weltpolitik* - a series of provocative strategies aimed at increasing German status and prestige to a level commensurate with their achieved power while at the same time thwarting the growth of countries such as Russia that were expanding their capability share at an ever faster rate.

This emotional component of power cycle theory follows from the extreme nature of structural change that is defined by critical points in the relative power cycle. It is an important, psychological component that links the systemic, state and individual levels of analysis into a multi-faceted explanation of international conflict. In summary, the power cycle theory of international conflict is based on a two premises:

1. *Power-role gaps lead to "disequilibrium" in the system, and are the latent causes of conflict between states:* International tension results from underlying differences in the level of influence and prestige actually enjoyed by a country and the role that its relative power in the system substantiates.

2. *Critical Points exacerbate the problems of disequilibrium and are the immediate cause of conflict between states:* Sudden and massive reversals in relative power trends lead to a decision-making environment for leaders that is fraught with conflicting emotions such as fear, anxiety, panic, or in some cases, over-confidence. In this environment, leaders are more likely to perceive specific power-role gaps as existential threats to their country that deserve military attention.

"Power-role gaps" are difficult to operationalize, and as a result are impossible to test in a quantitative analysis. Still, the concept of role is implicit in the foundation of the power cycle framework. Thus, while the statistical analysis presented in this dissertation does not explicitly treat "role" as an independent variable, both the case study and policy chapters explore the notion of role surplus and deficit. In particular, the existence of power-role gaps is linked to different kinds of policy declarations, emotional disposition and conflict behavior. As I will discuss in more detail, the development of a reliable definition and measurement for international role is perhaps the most important area for development within the power cycle research program.

Existing Power Cycle Analyses

Charles Doran and Wes Parsons published "War and the Cycle of Relative Power" - the seminal work of power cycle theory – in the *American Political Science Review* in 1980. In their analysis of war initiation by nine major states during 1816-1975, Doran and Parsons showed that extensive wars were more likely to break out

during those times when these states were undergoing critical points than when they were faced with "normal" circumstances. Moreover, the more time had passed since a state's last critical point, the less extensive would be a war initiated by it. The same historical evidence indicated that the two inflection points had a stronger influence in shaping the onset of extensive wars than the high and low turning points in power cycles. It is important to note that, as originally formulated, the theory of power cycles is concerned with the danger of *massive* conflict involving the great powers. This conflict may result from a direct confrontation or indirect entanglement due to their commitments to their respective protégés. Doran and Parsons (1980) disavowed the theory's relevance for explaining the frequency of interstate wars. Rather, its focus is on extensive wars — that is, those conflicts that resulted in the largest number of belligerents, the highest combat casualties, and/or the most protracted struggle.

Other recent empirical studies have extended the logic of power cycles to include less severe modes of international conflict such as militarized interstate disputes (Spiezio 1993), and deterrence encounters (Tessman and Chan 2004). The restriction of the theory to the rise and decline of major powers has also been lifted, as power cycles has proven relevant in explaining conflict in regional political systems such as the Persian Gulf (Parasiliti 2003) as well as South Asia (Kumar 2003). Power cycle theory has also been enhanced with inferences from outside frameworks such as prospect theory (Hebron and James 1997) power transition theory (Houweling and Siccama 1991), alliance portfolios (Chiu 2003) and nuclear strategy (Geller 2003).

The most recent and perhaps most promising extension of power cycle theory has occurred in the area of international political economy. Studies by have addressed the relationship of power cycles and economic structure in East Asia (Doran 2003), the European Union (Schmidt 2003) and the potential Free Trade Area of the Americas (James and Lusztig 2003). Collectively, these analyses demonstrate the robust empirical connection between the structural presence of critical points and the foreign policy decision to engage in interstate conflict, whether it is diplomatic, economic or military in form. Furthermore, these studies have suggested that the explanatory breadth of power cycle theory exceeds the original bounds as defined by Charles Doran.

With such a strong empirical record and unique theoretical contribution, one might suppose that power cycle theory occupies an exalted position in the discipline. As Greg Cashman notes, "At present no empirical research has directly challenged Doran's relative power cycle theory" (Cashman 1993). Why is it then, that power cycle theory is ignored when it comes to various compilations of "mature theories of international conflict" (Midlarsky 2000) or when scholars ask the question: "What do we know about war" (Midlarsky 2000; Vasquez 2000)?

The power cycle research program has a strong empirical record and a unique ability to integrate multiple levels of analysis. There remain, however, some crucial gaps in power cycle theory. The specific causal link between the structural occurrence of a critical point and a leader's decision to go to war is still *terra incognita*. In a sense, power cycle theory needs to be unpacked, explored and then remodeled as a

more accessible explanation of interstate conflict. My dissertation accomplishes this objective in the following three ways:

1. *Confirmation* of the existing and fundamental assertions of the power cycle framework via updated statistical analyses

2. *Establishment* of a more substantial and compelling causal link between the structural presence of critical points and the individual decision making calculus of governmental leaders

3. *Extension* of the logic of power cycle theory to address additional phenomena and data from several international politics simulations and also via integration with other developed theories of international conflict

A Multi-Method Approach

As Stephen Van Evera notes, there are three basic ways to test a theory: Observation using large-n analysis, observation using case studies, and experimentation (Van Evera 1997). This project will use all three methods as part of a strategy of "triangulation." Such a multi-faceted research design will allow for analysis of power cycle theory that is unprecedented in both breadth and clarity. The first leg of the methodological triad will be an updated and expanded statistical analysis. This analysis will help to "modernize" empirical support for power cycle theory by updating panel data to include the years 1816-2001, and will also serve to

extend to the logic of the theory via integration with other developed theories of international conflict. Finally, the statistical analysis will serve as a reliability test for the results that may be generated by the case studies and simulation. If conclusions drawn from the case studies are complemented by significant support from a "large-n" study, the overall results will be more robust.

An in-depth case study of the Moroccan Crisis of 1905 will test for a substantive, causal link between the presence (or absence) of a critical period and the presence (or absence) of the sudden and traumatic reversals of perception on behalf of key decision-makers. Furthermore, it is important to analyze the extent to which any trauma (if it exists) exacerbates existing gaps between power and role to the point that leaders are more apt to decide that war is the best way to address these gaps. Similar tests will be conducted within the framework of a classroom simulation. This simulation will present students (national leaders) with structural stimuli that simulate critical periods. Behavioral and perceptual responses will be recorded and tested in much the same way that pieces of empirical evidence from the case studies are. The simulation, however, will not only provide additional "data points" to the case study analysis. The structure of the simulation will allow for the effect of critical periods to be isolated to a greater extent than that which is possible through case study analysis alone (McDermott 2002).

Each of the objectives of this dissertation will be addressed jointly by at least two of the three methodologies employed in this research design. For example, the "confirmation of the fundamental assertions of power cycle theory" will be

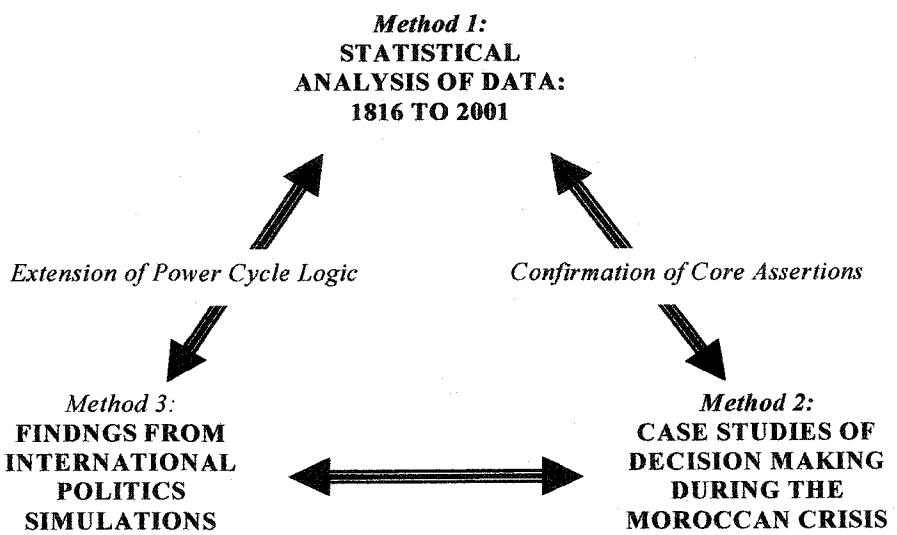
approached via both statistical analysis of historical interstate capability and conflict data and by detailed accounts of governmental reactions to critical points during the Moroccan Crisis. The interaction between the theoretical goals of this project and the methodological strategy for achieving these goals is depicted in Figure 2, which is essentially the "battle-plan" around which this dissertation is structured.

Organizational Structure

The rest of this study will be organized as follows: First, a statistical analysis of major power capability and conflict data between 1816 and 2001 will strengthen and expand the empirical record of power cycle theory. This analysis updates conflict data and relative capability cycles to include the years since the end of the Cold War, extends the range of conflict explained by power cycle theory to include great power deterrence encounters, and generates a progressive problems shift in the research program by integrating power cycle theory with inferences from prospect theory and the democratic peace literature. Specific propositions will address the following issues:

- Correlation between the structural presence of critical points and war severity, as measured by number of battlefield casualties
- Correlation between critical points and war frequency as well as initiation
- System-wide instability and the outbreak of the global wars

Figure 2: Theoretical Goals and Methodological Triangulation



- Extension of these correlations to include lower levels of international conflict such as great power deterrence encounters
- Unique effects of different critical points based on hypothesized levels of risk propensity inferred from prospect theory
- Interactive effects between different regime types and behavioral reaction to passage through a critical point

Subsequent to the statistical analysis, Chapter III will present a detailed case study of the 1905 Moroccan Crisis. The case study will showcase the ability of the power cycle framework to deliver a holistic and compelling account of this important event that laid the foundation for the outbreak of the First World War. It will also substantiate the correlation between critical points and war by presenting qualitative evidence at the level of individual German, French and British leaders. Diplomatic documents, personal memoirs and historical accounts will be used to flesh out the real impact of critical points on the psyche and foreign policy actions of government leaders. The logic of analysis will be as follows: First, it will be necessary to establish the importance of multilateral power shifts in shaping the political landscape during the time period in question. A key distinction between power cycle theory and power transition theory is the emphasis placed by the former on changing capability shares *for each major power in the* system. Second, the elimination of role deficit (in the case of Germany) or maintenance role surplus (in the case of both Britain and France) must be shown as the primary motivation in formulating foreign policy agendas. Last, and most important, evidence will support the proposition that contradictory emotions

such as over-confidence and anxiety are simultaneously engendered by passage through a critical point. If power cycle theory is supported, there will be significant evidence of individual-level anxiety, perceptual changes, over-reaction, panic and non-rationality for leaders that are experiencing critical points on their country's relative capability cycle. Finally, it should be possible to convincingly link these symptoms with a marked increase in the willingness to address frustrations over the role-power gap via military confrontation. The abundance of scholarly attention, public diplomatic records and autobiographical notes makes a case study of European leaders in the early 20th century even more attractive for the purposes of this study.

The fourth chapter will focus on the third and final leg of my triangulated research design: An analysis of four international politics simulations. The controlled nature of these simulations allows me to, in many ways, generate new data that are ideally formatted for testing a combination of the propositions first outlined in the statistical analysis and case studies. Specifically, I am able to collect conflict and capability data that are very similar to the "real world" data used in Chapter I. Furthermore, as part of the simulation, students are required to submit regular written reports that can be thought of as personal memoirs of their thoughts and perceptions at different points in each game. These data are analogous to the primary and secondary documents analyzed in the case study of the 1905 Moroccan Crisis. Thousands of emails represent diplomatic correspondence between leaders in the simulation, and end-of-game "summaries" are actually historical accounts of their country's experience. In all, the simulation design is quite valuable as an additional test of power cycle theory.

Together with the statistical analysis and case studies, analysis of the simulations creates a stronger and broader link between critical points and interstate conflict. As a result, power cycle theory is robustly supported as a compelling and complete explanation of the relationship between structural change, foreign policy and war.

The last chapter of this dissertation will focus on the policy implications of a revamped power cycle theory, with special attention to the future of political interaction in East Asia. By doing so, this chapter will bring lessons from the global major power system to a regional sub-system that will be increasingly important in the 21st century. The discussion of East Asia will address a number of questions: What are the relative capability trends in the region? Which countries have (or will have) a role surplus? Which countries have a role deficit? Most importantly, what mechanisms can facilitate the transfer of prestige and influence from those with role surplus to those with role deficit? Can this be accomplished before China, the United States or another Asian power pass through a critical point, creating the same kind of system-wide instability that plagued Europe during the years leading to the First World War? A practical discussion will address these questions, and will then be followed by some brief concluding remarks.

In the end, this dissertation represents a significant and progressive "problem shift" for the power cycle research program (Lakatos 1970). Lakatos judges the health of a research program by the nature of the theoretical and empirical development that is occurring. If research in the program is both predicting novel facts (i.e. attacking new issue-areas) and generating empirical evidence to support those predictions, then

the research program is characterized by progressive problem shifts, and is considered healthy. In contrast, if novel facts are not predicted and corroborated, then problem shifts are considered ad hoc. In the following analyses, I update the empirical tests that serve as the foundation of the theory, expand empirical domain under examination, substantiate the proposed causal relationships with new qualitative evidence, and use a multi-method research design to guide my inquiry. Based on the criteria established by Lakatos, this work is a useful example of a progressive, *intra-program* problem shift that characterizes a healthy research program. As a result of this dissertation, power cycle theory evolves, allowing us to move beyond isolated, "islands of findings" that use singular levels of analysis to explain conflict and toward a holistic explanation that accounts for the multi-layered, complex relationship between structural change, foreign policy and war.

CHAPTER II

THE EMPIRICAL STRENGTH AND VERSATILITY OF THE POWER CYCLE THEORY

The first objective of this dissertation is to confirm and expand the existing statistical support for power cycle theory. In addition to the inherent value of such an analysis, this chapter will bolster the external validity of results generated by the cases studies and simulation. As it currently exists, power cycle theory is limited by a reliance on older methods and data for generating relative capability cycles, a focus on only the most severe forms of interstate conflict and a lack of integration with other mature theories of the discipline. With these current limitations in mind, this statistical analysis will aim to extend the power cycle framework in four broad areas:

Confirming the Statistical Strength of Power Cycle Theory:

Does the historical record of power cycle theory remain strong with the addition of data from the last quarter-century (1975-2001)? Are major powers more likely to participate in, and initiate large scale interstate wars during critical periods than they are during "normal" periods on a state's relative power cycle? Also, can relative power cycles be more accurately located with a method that succeeds in:

1) Updating Doran's index of relative power by incorporating annual military expenditures of major powers?

2) Reducing measurement error by sampling capability data at 1-year intervals instead of the 5-year intervals traditionally employed?

Expanding the Empirical Domain to Include Deterrence Encounters:

Can the main assumptions of power cycle theory be effectively applied to less severe forms of international conflict such as great power deterrence encounters? Are states more likely to participate in, and initiate these encounters while passing through a critical period than they are during remaining times? By analyzing deterrence encounters it is also possible to address concerns about the potential endogeneity of critical points in relation to large scale war.

Drawing Inferences from Prospect Theory:

Are major powers affected differently by different types of critical periods? Does one type of critical period lead to a higher rate of conflict behavior than others? What can prospect theory tell us about the relative risk propensity of leaders during each period, and the relationship between risk propensity and participation in, and initiation of interstate war and deterrence encounters?

Regime Type and Critical Periods:

Are leaders in democracies more immune to the pitfalls of critical periods than are their non-democratic counterparts? Insight from the democratic peace research program tells us that democracies may be generally more pacific. Does this hold true when a democracy passes through a critical period, or are all regime types equally susceptible to a higher frequency of conflict during critical periods?

The rest of this chapter will be divided into six parts. First, there will be a fairly detailed discussion devoted to the replication, update and improvement of Doran and Parsons' original method for calculating relative power cycles. The next four parts will each address one of the subject areas outlined above. The data, methods and results used to address the relevant questions will be presented within each part of the analysis. A brief discussion of findings and implications will also take place before the conclusion of each section. Finally, concluding remarks will be provided after all analyses in this chapter are complete.

Generating and Interpreting Relative Capability Cycles

Replicating and Updating via the Doran and Parsons Method:

Replicating Doran and Parsons' methodology, I update each country's power cycles to 1995. A composite score is developed on the basis of five indicators: iron

and steel production, size of armed forces, total population, coal production (or its equivalent in oil), and urbanization. Measurements are taken at five-year intervals, and each indicator is given equal weight. There are serious questions regarding the validity of these five indicators. Iron and steel are much less important today then they were in the 1930s. Sheer demographic size (in terms of total population and number of military personnel) may not be as relevant as the technology available to a country's inhabitants and soldiers.[1] Some scholars have noted that the use of these indicators can distort the relative power of states (Sweeney, no date). Others, however, still argue for the paramount importance of "hard power" such as a large population and army (Mearsheimer 2001). The absence of reliable data for "soft power" indicators such as television or computer ownership, scientific patent applications and cultural influence before the 1950s also makes a transition away from prior measures of power all the more difficult.

Because of these issues, and for the sake of consistency, I use those indicators originally adopted in Doran and Parsons (1980). These colleagues noted similar concerns regarding the capability index they employed. However, they reported that patterns of relative power were unaffected if one were to substitute defense spending for the size of armed forces and GNP per capita for urban population (Doran and Parsons 1980, 957). While alternate indicators do yield more intuitively meaningful results (by downplaying the importance of sheer demographic size) they do not significantly change the important patterns in relative capability that determined the

[1] In the economic sector, a high per-capita rate of worker productivity can be seen as more "powerful" than a large workforce that is less efficient and has little or no access to technology.

location of critical points. In fact, the correlation between slopes using conventional and alternate indicators was a robust 0.98. As part of this project, I include military expenditures when computing relative power as part of an improved method for generating power cycles. Like Doran and Parsons, I find that the "updated" cycles (which are also computed differently in that observations occur is at one-year intervals and a simpler logistic model is used to fit the raw data to have a very high correlation with the "prior" cycles.

For each capability component, a given major state is assessed according to its percentage share of the aggregate figure summed from all the major states at each point in time. Therefore, for each component measure *pi*, State A's score at time *t* is computed according to the following formula (equation 1):

Eq. 1 $$P_{ai} = \{P_iA) / \sum_{k=1:n} (P_iN)\} * 100$$

The combined score for State A's relative power is then derived as the average of the five component measures according to equation 2.

Eq. 2 $$PA = {}_{1/5}X \{\sum_{1:5} (P_{ai})\}$$

Following Doran and Parsons (1980), I seek to determine the overall shape of each state's power curve. This determination is based on a logistic growth curve model first developed by biologist Raymond Pearl, who hypothesized that populations grow at an exponential rate until they reach an inflection point and then level off to reach an upper asymptote. Since the logistic curve models growth in an environment with limited resources, it is appropriate for describing the changes in a major state's relative power, which is limited by an "upper asymptote" equivalent to

100% of the power in the major-state system. To develop a profile of each major state's power cycle, I transform the raw data for its relative power *P* at time *t* with the help of Pearl's model as stated in equation 3.

Eq. 3 $$P_t = \frac{k}{1 + m^{*}\exp[F(t)]} + d$$

The term P_t refers to a country's relative power at time *t*. The counter for time *t* is the year of observation minus 1816 (the beginning of the data series) or the year when a state is judged to have joined the major-power system. The major power system is the select group of states with exceptional economic and military capability. Membership in this system is based on Small and Singer (1982, 45), and differs from Doran and Parsons' original 1980 study. Britain is the only state considered to be a major power for the entire scope of this analysis, although Russia / the USSR is only excluded during the years of their civil war. Austria-Hungary and Italy exited the system after the First and Second World Wars, respectively. Japan, the United States and China were latecomers to the major power system, with the PRC only included as of 1950. Germany and Japan both dropped from the system after their defeat in 1945, and their re-entry is a matter of significant debate.[2] Table 1 details membership in the major power system for all states.

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[2]Small and Singer (1982, 45) explained that because of their lack of substantial military capability, Germany and Japan have not been major powers since the end of World War II. More recently, Siverson and Ward (2002) considered these two states to have re-emerged as major powers in 1991. Obviously, whether and, if so, when these states should be treated as major states after 1945 is a matter of some ambiguity. I have included Japan in the estimation of power curves starting in 1952. West Germany is included as of 1955, with a re-united Germany replacing the FDR in 1991. However, as shown in Table 1, I have not considered them as major states for the purpose of determining the effects of critical points on involvement in immediate deterrence as either challenger or defender. This exclusion represents a conservative decision. The post-1945 history of these states would seem to lend

The terms *k* and *d* represent, respectively, the maximum and minimum scores for each state's relative power while they were members of the major-state system. These scores are necessary for determining the upper and lower asymptotes of their respective logistic curve. $F(t)$ is a non-linear function of the form $b_1 t + b_2 t^2 + b_3 t^3$ with time incorporated. Finally, the term *m* is a constant derived from regression. After algebraic conversion, equation 3 can be stated in linear regression form as follows.

Eq. 4 $$\ln (k / P_t - d) - 1 = \ln m + b_1 t + b_2 t^2 + b_3 t^3$$

The results of the ordinary least-squares regression are in turn used to arrive at each major state's power cycle. We estimate the critical points on these curves based on the first and second derivatives as given by equation 5.

Eq. 5 $$\frac{dP_t}{d_t} = \frac{k*m*\exp[F(t)]*(b_1+2b_2 t+3b_3 t^2)}{[1+m*\exp[F(t)]]^2}$$

When the first derivative is at zero, there is a local or global maximum or minimum in a state's power curve. A state experiences a reversal in the direction of the trend characterizing its relative power from growth to decline or vice versa. This process is represented by the high or low turning points in a state's power cycle. When the second derivative is at zero, the presence of an inflection in the curve is indicated. Critical periods for each state are listed in Table 1. A change from

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further support to the theory of power cycles as these years have not contained a critical period for either country. Both Japan and Germany have not participated or initiated any interstate conflict during that era (see Appendix). I plan to present in a future study the evidence pertaining to this issue.

accelerating growth to decelerating growth is marked by the first inflection point, whereas a change from accelerating decline to decelerating decline is marked by the second inflection point. At the first inflection point, a state that has been experiencing exponential growth suddenly realizes that while its relative power continues to increase, its rate of growth has suddenly slowed. Conversely, at the second inflection point, a state that has seen its share of international power erode at an ever faster rate becomes aware that while it is still a power in decline, its relative loss is occurring more gradually than before. Thus, the defining characteristic of a critical point is a reversal in either the direction or velocity of change in a state's relative power. According to Doran and Parsons, these are occasions when major powers are most likely to initiate extensive wars.

An Improved Method for Calculating Critical Periods

The availability and reliability of national capability data have increased significantly in the almost twenty-five years since the original publication of "War and the Cycle of Relative Power" (Doran and Parsons 1980). Thanks to the work of the Correlates of War Project (in various forms), data on iron and steel production, energy consumption, total population, urban population, military personnel and military expenditure is available at one-year intervals for all major powers between 1816 and 2001. The opportunity to generate relative power cycles with data at one-year intervals instead of five-year intervals means that the measurement error present

in all power cycle research to date can be reduced significantly. Because they were observing capability data only once every five years, Doran and Parsons mentioned the likelihood that the empirical date of a critical point is almost always different than the critical point that is calculated by the analyst. For example, a leader may recognize that their country has passed through an inflection point in 1941, but an analyst using five-year intervals may determine that this critical point actually occurs in 1945.[3] This may seem like a small difference, but in this example, the difference between the empirical critical period (1938-1953) is significant when compared to the period defined by the analyst (1942-1957). Because interstate war data are coded at yearly intervals, it is quite possible that the two specifications of critical periods would yield very different results.

A prime objective, then, should be to reduce as much as possible the difference between the empirical and calculated critical point. One way to do this is by using yearly data. If this is done, the maximum difference between empirical and calculated critical points is eleven months, which is less than the observation interval for interstate war data. By one-year intervals instead of five-year intervals, there is no "slippage" in the temporal correlation between critical periods and conflict data.[4]

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[3] Although he is not explicit about his methods for doing so, Doran seems to make inferences about the exact date of critical periods instead of assuming that they occur only during years that fall at five-year intervals. If this were not the case, all critical points would fall at the turn of a decade, or at the mid-point of a decade (i.e. 1935, 1940, 1945). Thus, all critical periods would begin either two years after the turn of the decade (i.e. 1942) or three years before the turn of the decade (1937). While Doran's choice to determine exact dates for critical points is preferable to doing nothing, a better strategy is to "fill in" the gaps in the data by using the new information available.

[4] Of course there is still a chance that leaders do not define relative capability with the same indicators that the analyst does. This would lead to the leader having a different "personal" relative capability cycle than the analyst, and by definition, a different temporal location of critical points. In this case, there could still be an important gap between the empirical and calculated critical periods.

With this in mind, the use of yearly capability data in lieu of the prior five-year intervals represents a more accurate method for computing relative capability cycles for major powers.

The Correlates of War data also allow for the incorporation of military expenditure into Doran's original formula for computing relative power. As is the case with most variables used in prior power indices, some would argue that military expenditure is neither a reliable or valid indicator of relative capability.[5] It is, however, a way to move away from a power index that relies solely on demographic size and more toward an index that accounts for the importance of technology on the battlefield as well as possession of a significant nuclear arsenal. As a first step in developing an index of national capability that is valid for 21st century international relations, the addition of military expenditure is a small but decided improvement over the indicators used by Doran and Parsons twenty-five years ago.

Using all six indicators (adding military expenditure to the original five), equations 1 and 2 can be used to establish relative capability scores for every year that a state is a member of the major power system. Once raw relative capability scores are calculated, a logistic model can again be used to determine relative powercycles that chart the rise and fall of states in the major power system.[6] Cycles for each country are depicted in Appendix 1, although Figure 1 illustrates the

[5] The military budgets of communist countries were exaggerated during the Cold War, and this upward bias may still characterize the relevant data series for Russia and China after 1989. This analysis, however, seeks to track changes in the direction and rate of each great power's trajectory in the context of the growth and decline of other great powers. Hence, I feel that the determination of critical points is unlikely to be affected if the relevant biases in the data series are consistent.

[6] This function incorporates time in the following manner: $b_1 t + b_2 t^2 + b_3 t^3$. This function differs slightly from that used by Doran and Parsons in that it does not set a predetermined upper and lower asymptote to the curve by incorporating the high and low points of relative capability into the model.

Japanese relative capability cycles as a more readily available example. Relative capability share is plotted on the y-axis against time on the x-axis. The graph for Japan is particularly useful because it illustrates a capability trend including a low turning point, a first inflection point and a high turning point within a single graph. These critical points and the year of their occurrence are listed underneath the country name. From these cycles, critical points can be computed by the principles of calculus established in equations 3, 4 and 5. These "updated" critical points are presented (along with those defined by the "prior" method employed by Doran and Parsons) in Table 1.

Figure 1: The Japanese Relative Capability Cycle

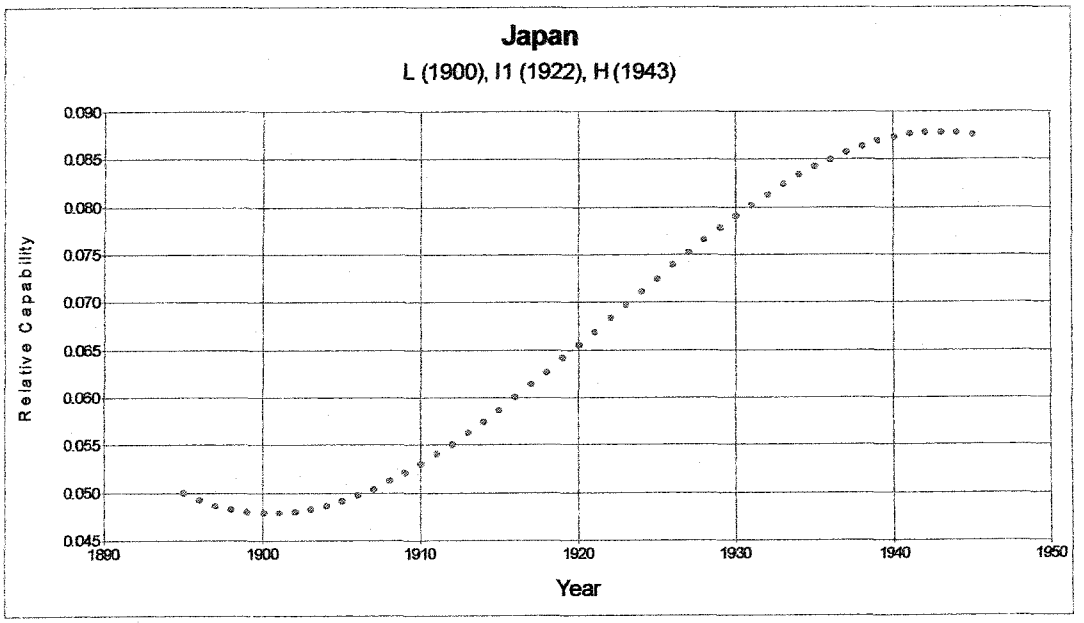

Table 1: Major Power Membership and Critical Points

State	Major Power Status	Low Point	First Inflection	High Point	Second Inflection
Prior Method (Doran and Parsons 1980)					
United States	1898-1995		1912	1962	
United Kingdom	1816-1995	1989		1816	1902
France	1816-1940				1913
	1945-1995				
Prussia/Germany	1816-1918		1866	1904	1935
	1925-1945				
Austria-Hungary	1816-1918	1912		1841	1884
Italy	1860-1943	1909	1936	1860	1886
Russia	1816-1917	1896		(1809)[a]	1853
	1922-1995		1962		
China	1950-1995	(1946)			
Japan	1895-1945		1941		
Total = 22 Critical Points		5	5	6	6
Updated Method					
United States	1898-2001	1991		1939	1965
United Kingdom	1816-2001	1976		1830	1903
France	1816-1940	1975		1843	1909
	1945-2001				
Prussia/Germany	1816-1918		1865	1914	
	1925-1945				
Austria-Hungary	1816-1918	1917			1867
Italy	1860-1943	1899	1917	1934	
Russia	1816-1917	1868	1917	1973	
	1922-2001				
China	1950-2001	1950			
Japan	1895-1945	1900	1922	1943	
Total = 22 Critical Points		8	4	8	4

[a] Calculated Critical Point falls outside dates of major power system membership

While the total number of critical points is identical for both methods, there are some meaningful differences in the nature of the points as they are located on each country's relative capability cycle. By including more data since the breakup of the USSR, most states (with the exception of Russia of course) have enjoyed an increased share of relative capability at the expense of the Soviet collapse. This is particularly true for the United States, which, when the updated method is employed, seems to have actually turned the corner from an era of decline into a new period of expanding capability share. The inclusion of military expenditure as a sixth measure of capability also favors the relative power score of the United States. This difference is indicated by the presence of a "low turning point" in 1991 when using the updated method, and the absence of such a turning point according to the prior method. On the whole, it is the American capability cycle that differs most markedly depending on the method employed. The correlation between the two American curves is still statistically significant, but it is much lower than the almost perfect matches for most every other country. Table 2 shows the correlation between updated power cycles and their prior counterparts. As mentioned, correlation between cycles is very high for every country. In fact, for each major power, the correlation between both cycles is statistically significant at the $p < .01$ level. Thus, despite the significant changes (improvements) accompanying the use of an updated method for calculating relative power cycles, the substantive differences are not drastic enough to make the two methods incompatible. In the American case, the differences that do exist can be explained quite intuitively.

Table 2: Statistical Correlation of Prior and Updated Relative Power Cycles

State	Correlation	Significance
USA	0.5953	0.0044
United Kingdom	0.9999	0.0000
France	0.9977	0.0000
Germany	0.8815	0.0000
Austria-Hungary	0.9951	0.0000
Italy	0.7074	0.0018
Russia	0.9032	0.0000
China	0.9466	0.0000
Japan	0.9728	0.0000

It is also important to mention that, following Doran and Parsons (1980), I define a sixteen-year window surrounding a critical point as a critical *period.*[7] This interval consists of the three years prior to the estimated critical point and twelve years following it. Given the imprecision in determination of the exact timing of critical points (especially if five-year intervals are used to generate the power cycles), this window seems sensible. Observations falling outside this window are treated as the non-critical periods, and they serve as a control group for comparisons with the critical periods.

Following from the arguments presented above, I feel that the updated method for calculating critical periods is actually an improved method. Measurement error is reduced and relative power defined in a slightly more modern way. Critical periods that are generated via this improved method are used in the rest of the statistical analysis, although Doran and Parsons' prior critical periods still take center stage. Results for both sets of critical periods are presented side by side in the next two sections. These results show that the empirical strength of power cycle theory does not vary in any meaningful way, regardless of the group of critical periods analyzed.

[7] For Doran and Parsons, this decision was based on the fact that a sixteen-year window represented ten percent of the 160-year era covered in their study. As my updated analysis extends this era to approximately 185 years, an argument could be made for widening the critical period window to eighteen or nineteen years and preserving the "ten percent" concept for critical periods. In the interest of conducting a more stringent test for power cycle theory, I maintain the sixteen-year window, despite the fact that this narrows the critical window to less than ten percent of the total years covered in this analysis.

Testing the Hard Core of the Power Cycle Research Program

At the most elemental level, power cycle theory is about the rise and fall of great powers, and the conflicts between them. In this sense, the theory is most relevant for explaining the onset of large scale war in the international system. In general, war "size" can be defined in a number of ways – severity (battle deaths), duration and magnitude (the number of belligerents) are common indicators. In this analysis, I make the argument that any war involving a major power is likely to have some sort of significant impact on the political, economic or even territorial makeup of the international system.[8] Even when a major power squares off against a peripheral country, and resulting casualties are minimal, the basic act of war involving a prime player in the system means that such conflicts are consequential. The recent conflict between the United States-led coalition and Iraq serves as a prime example.[9] In fact, drastic changes in battlefield technology and the more general nature of modern warfare may cast doubt on a definition of large scale war that focuses solely on battle deaths. In this section, I suggest that, consistent with Doran's research, there is a positive and significant relationship between passage through a critical period and involvement in severe war. Second, I argue that – all else being equal - major powers should simply be more likely to participate in interstate war if they are passing through a critical period than they are during remaining years. Finally, I extend the

[8] I make this statement with the qualification that a conflict involving at least one major power must generate a total of at least 1,000 battle deaths to be included in this analysis.
[9] It should be noted that, at the time of this writing, American battle-deaths in Iraq had recently exceeded 1,000 in number.

logic of the previous statement to argue that major powers are also more prone to *initiate* interstate war during critical periods than non-critical periods. In summary, the following propositions address three distinct aspects of interstate war: severity, participation and initiation. The confusion, panic, fear and over-reaction that makes leaders more prone to escalate interstate conflict to levels of high severity should also be the primary culprits in their earlier decision to engage in – or even initiate - an interstate war that has the potential to involve such dramatic human costs.

Proposition 1: The mean severity of interstate wars initiated by major powers during critical periods will be significantly higher than the mean severity of all other wars.

Proposition 2: During critical periods, the rate of interstate war participation (regardless of role as initiator or defender) for major powers will be significantly higher than the rate of interstate war participation by those same countries during non-critical periods.

Proposition 3: Rates of interstate war initiation will also be significantly higher for major powers during critical periods than during remaining times.

Data and Methods

In Table 1, one can see that there are between five and nine members of the major power system for at least some period of time between 1816 and 2001.[10] If, for each power, the total years of system membership are summed, there are 1,068 country-

[10] As mentioned earlier, membership in the major power system is taken from Small and Singer, then updated to include the years beyond their 1982 study.

years that are analyzed in this study. Each country-year falls within either a critical period or a non-critical period. The specific breakdown of country-years into these two classifications depends on the method used for locating critical periods on the relative capability cycle. Data on war severity, participation and initiation are all drawn from the Correlates of War Project. According to these data, there are 78 cases of interstate war participation by major powers between the years 1816 and 2001. To be defined as an interstate war, a conflict must reach a threshold of 1,000 battle deaths for all participating countries. Of the 78 cases of war participation, the major power was the initiator 55.1 percent of the time (43 cases). Thus, war participation and war initiation are distinguished from one another. For each observation (country-year) that a major power is involved in a war, it is coded as a war *participant*. Out of these observations, however, there will be a sub-set of country-years during which the country in question *initiates* interstate war. This less frequent event of war initiation is again based on the coding practices of the C.O.W. project. The mean severity of all wars initiated by a major power is 224,621. Severity ranges from 21 (the United States in the Boxer Rebellion, 1900) to 3,500,000 (Germany in the Second World War).[11] All data on war participation, initiation and severity are presented in Appendix 5. For tests involving war participation and initiation, two kinds of variables are analyzed. The first type of variable is coded with a value of "1" for the year in which a country *first* participates in, or initiates interstate war. For example, in the case of France during World War One, the first war participation variable is coded

[11] The mean value is obviously inflated by the very high severity of both World Wars One and Two. Perhaps a more accurate indicator of "average" severity is the median value, which is 4,000 battle-deaths.

"1" only in 1914, even though France was involved in the war between 1914 and 1918. The same principle holds true for the first type of war initiation variable. In the case of Germany during the Second World War, war initiation is coded "1" only in 1939.

However, I feel that a more accurate analysis can be conducted if a second version of both the participation and initiation variable is generated. This version codes France's participation in World War One as a "1" for all years in which it was an active participant (1914, 1915, 1916, 1917 and 1918). The same process is applied to the war initiation variable. A value of "1" is given for all years that the power fights in a conflict *that it initiated.* In summary, the second type of variable indicates the probability that a state is currently fighting in a war in which it is a participant and the initiator. From this, the overall rate of war participation and initiation can be determined for generic "critical" and "non-critical" years. As mentioned earlier, a year is defined as "critical" if it falls within a sixteen-year window that surrounds the empirical critical point. This window consists of the three years prior to, and twelve years following the critical point. A comparison can then be made. In order to test hypotheses 1 through 3, a series of comparison of means tests are run on a set of five variables: war severity, war participation (date of onset), war participation (overall rate), war initiation (date of onset) and war initiation (overall rate).

Number of territorial borders, geographic proximity, physical size, alliance membership, power parity and the possession of nuclear weapons (for the post-1945 world) are customarily introduced as independent or control variables in aggregate

analysis of wars and disputes. For this study, national capabilities (defined by either the prior five indicators or with the addition of military expenditure) have already been incorporated in the determination of power cycles. On more than one occasion, Doran (1991, 123-124; 1989, 388) shows that the experience of critical points rather than the existence of power symmetry or transition among the major states tends to be associated with a power's initiation of extensive war. In contrast to their assistance in distinguishing the major states from the minor ones, the other variables just mentioned are less useful for discriminating among the former states. They also tend to manifest multicollinearity. Also, in most cases of interstate conflict (be it war or deterrence encounters), the relevant officials must surely have already taken into account all the publicly available information (such as physical distance, alliance membership, nuclear status) by the time they make the decision to engage in hostilities. Such information must have already been discounted by these officials, and their decision-making calculus must have instead reflected their private information (Fearon 1995). Mutual awareness of well-known facts could only affect the terms of a potential settlement but not whether and, if so, when war will erupt or end (e.g., Cetinyan 2002; Wittman 1979). Given these considerations, the customary variables used for statistical control are neither necessary nor appropriate in this case.

Results and Discussion

Mean values for all five variables are compared during critical and non-critical periods. For severity, mean values represent the average number of battle deaths for wars occurring during critical periods versus those occurring at other times. For other measures, the mean represents the probability of interstate war participation (or initiation) in any given critical or non-critical year. For example, consider Part B of Table 3. Based on the prior method of locating critical periods, there are 308 critical country-years and 760 non-critical country years between 1816 and 2001. During the 308 critical country-years, there are 30 country-years during which a major power first participates in an interstate war. This results in a mean of 0.0974. During 760 non-critical country-years, there are 48 country-years during which a major power first participates in an interstate war. This results in a mean of 0.0632. The difference in means between critical and non-critical country years is statistically significant. The results in Part C of Table 3 are determined in much the same way as Part B, with the exception that country-years are coded positively for *every* year that a major power participates in an interstate war, not just the first year of participation. This is why the means are higher for Parts C and E, which use this less restrictive coding method. [12]

[12] Further contrast between the two coding strategies can be found by addressing the historical example of Germany in World War Two. The first strategy that positively codes only the year of war onset would give a value of "1" only to country-year "Germany 1939". Conversely, the second strategy would give a value of "1" to all country-years during which the war took place. In this case, "Germany 1939" through "Germany 1945".

Table 3: Comparisons of Means of War Severity, Participation and Initiation

	n	*Means*	t *Value*[a]	*Probability*[b]
A. War Severity				
Prior Method				
Non-critical periods	26	27,556		
Critical periods	15	566,199	2.6629	0.002
Updated Method				
Non-critical periods	23	174,972		
Critical periods	18	288,060	0.5318	0.144
B. War Participation (year of onset)				
Prior Method				
Non-critical periods	760	0.0632		
Critical periods	308	0.0974	1.8055	0.017
Updated Method				
Non-critical periods	739	0.0650		
Critical periods	329	0.0912	1.4088	0.039
C. War Participation (all years)				
Prior Method				
Non-critical periods	760	0.1263		
Critical periods	308	0.2662	5.2804	0.000
Updated Method				
Non-critical periods	739	0.1340		
Critical periods	329	0.2401	4.0617	0.000
D. War Initiation (year of onset)				
Prior Method				
Non-critical periods	760	0.0342		
Critical periods	308	0.0552	1.5092	0.032
Updated Method				
Non-critical periods	739	0.0338		
Critical periods	329	0.0547	1.5306	0.031
E. War Initiation (all years)				
Prior Method				
Non-critical periods	760	0.0566		
Critical periods	308	0.1721	5.8064	0.000
Updated Method				
Non-critical periods	739	0.0622		
Critical periods	329	0.1520	4.5704	0.000

[a] Assuming equal variances
[b] One-tailed significance test

War Severity:

Interstate wars initiated by a major power between 1816 and 2001 have a higher mean severity during critical periods than at other times. When the prior method of generating power cycles is employed, the mean severity during critical periods is 566,179 battle deaths compared to 27,556 during non-critical periods. This difference in means is significant at the $p<0.002$ level. When the updated method for computing power cycles is employed, the mean severity during critical and non-critical periods is 288,060 and 174,972, respectively. This difference in means approaches, but does not reach statistical significance. Both prior and updated critical periods are found to be positively associated with battle deaths during interstate wars initiated by major powers. The prior critical periods generate a difference in means that is statistically significant, while the updated critical periods do not. Thus, depending on the method employed, Proposition 1 is supported to a varying extent. The lack of statistical significance associated with the updated critical periods is due solely to a single observation in the data – Germany's initiation of World War Two (severity = 3,500,000). This observation falls with the prior critical period window of 16 years, but not the new windows of the updated method. If this single observation is discounted, the mean severity of wars during non-critical periods falls to 23,835 for

the updated method.[13] As a result the new difference in means is statistically significant at the $p<0.016$ level. Furthermore, the prior method still generates a difference in means (mean severity during critical periods falls to 356,642) that is statistically significant at the $p<0.004$ level. The enormous impact of a single observation (although it is certainly an important one) lends further credence to the notion that defining large scale war solely in terms of severity is may lead to a few cases exerting disproportionate influence on overall results. By conducting additional tests that define large-scale war simply by the involvement of a major power, this pitfall can be avoided.

War Participation and Initiation:

The results in Table 3 lend strong and consistent support to Propositions 2 and 3: Leaders are much more likely to decide to participate in, or initiate interstate war during critical periods than they are at all other times. This finding is robust, regardless of the decision to measure participation and initiation by only the date of onset, or by all years during which fighting occurs.

Are major powers more likely to be embroiled in interstate war during critical periods than at remaining times? When war participation is defined only by the year of onset, the mean during critical periods is 0.0974 compared to 0.0632 for non-critical periods. Practically, this means that during any given critical "country-year",

[13] Of course, for the updated method the mean severity for wars initiated during critical periods is unchanged. Likewise, the mean severity of wars during non-critical periods does not change when testing the prior method.

there is a 9.74 percent chance that a major power begins participation in an interstate war. For other times, the rate is 6.32 percent. The statistical difference between the two group is significant at the $p< 0.017$ level. When the updated method is employed, the percentage during critical periods is higher than that during other times by a margin of 9.12 percent to 6.60 percent. This difference is significant at the $p <0.039$ level. It is important to note that this finding extends the logic of power cycle theory well beyond the original scope defined by Doran; he disavowed the theory's relevance for explaining the frequency of war participation or initiation, and instead focused solely on war severity.

If the second version of the war participation variable is employed, resulting means indicate the likelihood that – during any given country-year - a major power is involved in fighting. During "prior" critical periods, there is a 26.62 percent chance that, regardless of the date of onset, major powers are participating in an interstate war. This compares to a rate of 12.63 percent during non-critical periods. This difference is significant at the $p <0.000$ level. The difference for "updated" critical periods is 24.01 percent for critical periods and 13.40 percent at times outside the critical period window. This difference is also statistically significant at the $p <0.000$ level. In summary, support for Proposition 2 is strong and consistent across varying definitions of war participation and different sets of critical periods.

Are countries more likely to initiate a war when they are passing through a critical period? When the analysis shifts gears to address a more specific occurrence – war initiation by major powers – the results remain convincing, and Proposition 3 is

supported. Measured solely by year of onset, the rate of war initiation during prior critical periods is 5.52 percent compared to 3.42 percent during non-critical periods. The difference is significant at the $p < 0.032$ level. The difference when updated critical periods are analyzed is also significant, at the $p < 0.031$ level. During any given "critical" year, there is a 5.47 percent chance that a major power will initiate a war, compared to a 3.42 percent chance during non-critical periods.

When the second, more encompassing version of the war initiation variable is tested, results are consistent with those above. During any year in "prior" critical periods, a state has a 17.21 percent chance of being actively involved in a war that it initiated, compared to a 5.66 probability during non-critical periods. The rates are 15.20 percent and 6.22 percent, respectively, when the updated method is used. For both prior and updated methods, the difference in means between critical periods and remaining times is significant at the $p < 0.000$ level.

Unquestionably, the preceding analysis supports Propositions 1 through 3. Mean war severity, as measured by battle deaths, is much higher during critical periods than non-critical periods. When using Doran's prior method for computing critical periods, this difference is statistically significant. If a single (outlier) observation is removed from the analysis, the difference in means generated by the updated method developed in this section is equally significant. The likelihood of war participation is clearly higher during critical periods, by a statistically significant margin. This significant difference is consistent across variable types and both prior and updated methods. Strength of support remains just as strong as consistent when attention is

turned to war initiation. Major powers are much more likely to initiate interstate war during critical periods than they are during non-critical periods. Via this analysis, the elemental propositions of power cycle theory are strongly confirmed. War severity, participation and initiation are all positively correlated with critical periods, regardless of the method used for determining those critical periods.

Critical Periods and Deterrence Encounters

Motivation:

Major power conflict in the information age is characterized less and less by battlefield confrontations that generate high casualties. Indeed, most modern conflict is not best defined as interstate war. Instead, lower levels of conflict such as militarized disputes, economic warfare and deterrence encounters seem to occupy a larger stage in the international political arena. For power cycle theory to be truly relevant as a framework for understanding conflict in the 21st century, it will need to extend its empirical domain to include conflict that falls short of all out war. Others (Spiezio 1993) have already examined the relationship between critical periods and militarized interstate disputes, and there is not yet reliable data to conduct a sound comparison of various types of economic warfare during critical and non-critical periods. Thus, an analysis of deterrence encounters not only fills an important gap in

the power cycle research, it is can be completed in systematic and methodologically sound manner.

Another reason for studying deterrence encounters, as pointed out by several colleagues, has to do with an endogeneity concern. Extensive wars cause massive changes in national power and the demotion and even elimination of some major powers (e.g., Austria-Hungary, Germany, Japan). Given the causal importance of the location of critical points, one may ask whether national power cycles predict extensive wars or extensive wars shape national power cycles. Studying deterrence encounters helps to alleviate though not eliminate this concern. Because most of these episodes do not produce war, it is easier to conclude that deterrence confrontations have their genesis in changing power cycles rather than the other way around.

Does the trauma of a critical period positively correlate with major power involvement in, and initiation of, deterrence encounters? Are encounters where at least one major power is passing through a critical period more likely to escalate to interstate war? If abrupt and sudden reversals in the rate or direction of a country's relative capability growth lead to the kind of anxiety, panic and over-aggressiveness that is linked to interstate war, I argue that these same factors will be tied to conflict in the form of major power deterrence encounters. Three basic hypotheses will be tested in this section:

Proposition 4: Major power involvement in deterrence encounters will be significantly more likely during critical periods than it is at remaining times.

Proposition 5: During critical periods, major powers will be significantly more prone to initiating deterrence challenges than they are during non-critical periods.

Proposition 6: Deterrence encounters will have a significantly higher chance of escalating to war if at least one of the major powers involved is passing through a critical period.

Data and Methods:

The deterrence encounters analyzed in this study involve major powers on opposite sides in these episodes as the challenger and defender, respectively, of the status quo. When a third party (a minor state) is involved as a defender's protégé, there is a situation of extended deterrence in contrast to a situation of direct deterrence when only the two major states are engaged. There is an extensive empirical literature on these encounters, both in the presence and absence of a specific verbal threat and military move by the challenger. This specific action changes a situation of general deterrence into one of immediate deterrence, and this latter phenomenon has been the focus of several empirical studies (e.g., Huth 1988a, 1988b; Huth and Russett 1993, 1988, 1984).

How "serious" does a challenger's intention to launch an attack have to be and, concomitantly, how committed must a defender be to a military retaliation in case of such an attack before a situation qualifies as a case of immediate deterrence? This question has been a matter of some debate (Huth and Russett 1990; Lebow and

Stein 1990). Relevant disputes can obviously combine elements of both deterrence and compellence and that, as Fearon (2002, 1994b) pointed out, they represent strategic behavior with selection effects. Because Lebow and Stein (1990) demanded a high commitment by a challenger to attack and by a defender to fight back in order for an episode to be considered immediate extended deterrence, they found only a few qualifying cases. Their six cases involving the great powers on both sides of a dispute all ended up in deterrence failure (the 1938 Munich settlement only achieved a temporary peace at the cost of concessions to Hitler). In both words and deeds, the eventual belligerents in these cases had signaled their seriousness by assuming significant domestic and foreign audience costs in order to convey their policy commitment (Fearon, 1997, 1995, 1994a). While analysis of these six cases is not included in this analysis, previous work (Tessman and Chan 2004) has shown that results for the cases do not depart significantly from those found by analyzing a larger dataset.

It is important to clarify that an outcome of deterrence failure does not necessarily mean the outbreak of war. Deterrence fails when either the defender yields to the challenger's demands, or when the opponents fail to negotiate an acceptable compromise to avert war. War occurrence accordingly refers to only a subset of those situations when deterrence has failed. This occurrence requires the belligerents to engage in sustained combat on a large scale; a limited use of force would not qualify as deterrence failure or war (Huth, 1988a: 26-27; 1988b: 441). As was the case in the preceding section of this analysis, the criterion of 1,000 battle

deaths suffered collectively by the opposing major states is used to define war occurrence.

Eighty-eight cases of immediate (direct or extended) deterrence involving major states as both challenger and defender. The relevant data were originally collected by Huth *et al* (1993, 1992) and put to the analysis, among other purposes, of the escalation of disputes among the great powers. Given some differences in the temporal identification of these states, I add the 1956 Suez Canal Crisis to their list. In the years since 1984, I found one additional deterrence episode between the major states (the intervention of two U.S. carrier groups near the Taiwan Strait in 1996).A complete list of deterrence encounters included in this study can be found in Appendix 4.

As just explained, these are episodes when a challenger has undertaken some tangible move signifying an inclination to overturn the status quo even though a defender has previously issued a warning to oppose this challenge (i.e., in face of an attempt at general deterrence by the defender). The defender in turn reacts to the challenger's move. In undertaking this action and reaction, respectively, the challenger and defender "select" themselves to bring about the observed cases of immediate deterrence. Earlier, it was hypothesized that states experiencing a critical period will be more likely to be involved in, and initiate deterrence encounters. Furthermore, all states involved in a confrontation are less likely to back down and accommodate the opposition if they are experiencing a critical period. In other words, if a state is less willing to accommodate, it is more inclined to resort to war to break

the stalemate. Deterrence encounters are more likely to escalate to war if one or more of the participating major powers are passing through such a period.

The process of confrontation just described involves several rounds of interaction, a series of escalations that may eventually end in war. This analysis concerns the sequence of interactions after the initial moves have already been made. Which major states tend to find themselves in this situation of immediate deterrence? Further escalation will ensue if the challenger does not relent in face of the defender's threat of immediate deterrence and if, in face of the challenger's persistence, the defender implements its deterrent threat. Conversely, each party can choose to exit from the confrontation by accommodating the other's latest move. Seen in this light, this analysis is about determining when major states are most likely to be caught in a collision course — and after colliding, when they are unable or unwilling to withdraw from the process of escalation just described.

A series of comparison of means tests are used to evaluate Propositions 4 through 6. Critical and non-critical periods are compared by the mean occurrence of deterrence involvement, deterrence challenges and escalation of deterrence encounters to war. As was the case in the previous section, two versions of the "involvement" and "challenge" variable are used. The first version codes only the year of onset for involvement or challenge. The second version incorporates the duration (in years) of the encounter for each major power involved. While typically shorter in duration than interstate wars, some deterrence encounters continue for more than a single year. Thus, there are still differences (though less drastic) between the

two coding strategies. Results are also presented for critical periods calculated by both Doran's prior method and the updated method developed in this dissertation.

Results and Discussion:

Results for all three sets of variables are presented in Table 4. During critical periods, means for deterrence involvement, deterrence challenges and escalation of encounters to interstate war are all significantly higher than means during non-critical periods. Across variable and critical period types, these results are consistent and supportive of Propositions 4 through 6.

Table 4: Comparisons of Means of Deterrence Involvement, Challenges and Outcomes

	n	*Means*	t *Value*[a]	*Probability*[b]
A. Deterrence Involvement (year of onset)				
Prior Method				
Non-critical periods	760	0.1816		
Critical periods	308	0.2370	1.7345	0.021
Updated Method				
Non-critical periods	739	0.1867		
Critical periods	329	0.2219	1.1198	0.065
B. Deterrence Involvement (all years)				
Prior Method				
Non-critical periods	760	0.3105		
Critical periods	308	0.4188	2.5373	0.006
Updated Method				
Non-critical periods	739	0.3194		
Critical periods	329	0.3921	1.7340	0.021
C. Deterrence Challenge (year of onset)				
Prior Method				
Non-critical periods	760	0.0763		
Critical periods	308	0.1396	3.0508	0.001
Updated Method				
Non-critical periods	739	0.0879		
Critical periods	329	0.1094	1.0504	0.073
D. Deterrence Challenge (all years)				
Prior Method				
Non-critical periods	760	0.1171		
Critical periods	308	0.2792	5.8972	0.000
Updated Method				
Non-critical periods	739	0.1464		
Critical periods	329	0.2036	2.1023	0.009
E. Escalation to War				
Prior Method				
Non-critical periods	58	0.0690		
Critical periods	43	0.2325	2.3958	0.004
Updated Method				
Non-critical periods	65	0.0615		
Critical periods	36	0.2777	3.1259	0.001

[a] Assuming equal variances, [b] One-tailed significance test

Deterrence Involvement:

During the 308 country-years defined as falling within a critical period by the prior method, there were 73 cases of initial major power involvement in a deterrence encounter (generating a mean of 0.2370). During the 760 non-critical country-years, there were 138 cases (generating a mean of 0.1816). This difference in means is significant at the $p < 0.021$ level. When using the updated method, the mean during critical periods (0.2219) is significantly higher than during non-critical periods (0.1897). If deterrence involvement is defined as any year a major power is participating in an encounter (even beyond the year of onset), the positive difference in means of involvement during critical periods and non-critical periods remains significant. This result is consistent for both types of critical periods tested.[14] As outlined in Proposition 4, leaders are much more likely to lead their country into a deterrence encounter if they are under the stress of a critical period. This finding suggests that the same logic that links critical periods with major power war also binds them to major power deterrence encounters.

Deterrence Challenges:

Just as leaders are more likely to initiate interstate war when they are experiencing a critical period, the results in Table 4 show that leaders are also more

[14] For the prior method, critical periods have a mean of 0.4188, while non-critical periods have a mean of 0.3105. For the updated method, the means are 0.3921 and 0.3194, respectively. Both differences are statistically significant.

likely to initiate a deterrence encounter with another major power or protégé during a critical year. During both "prior" and "updated" critical periods, major powers are much more prone to deterrence challenges than they are at other times. The difference in means between critical and non-critical periods is 0.1396 to 0.0763 when using the prior method, and 0.1094 to 0.0879 with the updated method. These differences are significant at the $p < 0.001$ and $p < 0.073$ levels, respectively. If the second, broader version of the deterrence initiation variable is employed, the differences in means between critical periods remain positive, regardless of the critical period type. The statistical significance of the difference in means is even higher in this case. As was the case with involvement in deterrence encounters without regard to role, major powers are much more likely to take on the role of challenger in a deterrence encounter when they are passing through a critical period. The results clearly support Proposition 5. Results for both Propositions 4 and 5 suggest that the causal relationship that has been shown by many to exist between critical periods and war participation as well as initiation may be extended to include deterrence involvement and challenges.

Deterrence Outcomes:

If leaders are more likely to participate in, and initiate deterrence encounters during critical periods, is their inclination to escalate the confrontations to the point of war also affected by the presence of a critical period? Results from this analysis show that deterrence encounters in which at least one major power is experiencing a critical

period are about four times more likely to escalate to the point of war than are those encounters that occur at other times. Approximately twenty-three percent of confrontations that have at least one "critical" power involved escalate to war when the prior critical periods are used. This number is 27.77 percent for the prior method. Encounters that have no participants experiencing a critical period only escalate to war 6.15 percent of the time (6.90 percent for the prior method). For both methods, the difference in means is significant at the $p < 0.005$ level, suggesting a very meaningful discrepancy, and strong support for Proposition 6.

Together with those before, these results demonstrate that power cycle theory is successful in explaining the occurrence, initiation and escalation of deterrence encounters. Roughly, these three bundles of findings correlate to earlier results indicating a positive and significant relationship between critical periods and war participation, initiation and severity. The fact that both sets of results remain robust under varying conditions (variable definitions and critical period types) underscores the empirical strength of the research program. While further research needs to be directed at additional indicators of lower level conflict (economic warfare, alliance patters or even voting patterns in IGOs), the extension of power cycle theory's empirical domain to include deterrence encounters represents a strong step toward making the framework more relevant for understanding the kinds of dynamics that dominate international politics in the 21st century.

From an historical perspective, these findings also emphasize the relevance of power cycle theory in describing the behavior of governmental leaders in important

instances of conflict that fall short of the criteria for interstate war – such as the Moroccan Crisis of 1905. Deterrence encounters (such as the Moroccan Crisis) are often crucial in shaping the evolution of the international system, and thus deserve attention equal to that accorded interstate war. Germany's deterrence challenge to both Britain and France was a fundamental precursor to the First World War, as it solidified the Entente Cordiale while serving to further isolate Germany diplomatically. The fact that Germany and Britain were both experiencing critical periods at the time of the crisis fits very well within the broader findings presented in this part of the analysis. In the upcoming case study of the Moroccan Crisis, I will emphasize the specific nature of the relationship between critical periods and conflict behavior that played a primary role in the confrontation over Morocco.

As a final note, I will underscore the empirical success of the updated method for generating critical periods that I presented earlier in this chapter. Given the advantages this method has over the prior method in terms of measurement error and incorporation of modern notions of power, it seems that further improvement of the prior methods for computing relative power cycles is indeed a fruitful area for future research. More refinements can certainly be made in the way that national capability is defined (as mentioned, this is an issue that resonates well beyond power cycle research to include almost all international relations research that addresses the balance of power between states), and in the temporal extension of reliable capability indicators to the years prior to 1816. For the rest of this analysis, however, it seems redundant to publish results for both the prior method and the updated method

developed here. Results are consistent between methods for almost every test, only varying occasionally in the extent to which a result is statistically significant. Deferring to the wide body of research that has employed Doran's original method for the past twenty-five years, the remaining results in this section will be those generated with the prior formula. All results for the updated method are listed in Appendices 2 and 3.

In another attempt to make the remaining results more digestible, variables measuring the "overall yearly rate" of war participation, war initiation, deterrence involvement and deterrence challenges will be omitted in favor of the more restrictive operationalization of these variables that is coded only by the year of conflict onset. Those variables indicating overall yearly rates generated results that had higher levels of statistical significance for every test conducted in the preceding section. Thus, the decision to use the "date of onset" variables represents a conservative decision by making the achievement of statistical significance more difficult.

Drawing Inferences from Prospect Theory

One characteristic of "mature, second-order" theories is their ability to successfully complement (and be complemented) by other popular theoretical frameworks. Indeed, the integration of compatible theories seems to be one plausible strategy for bridging the gap between the "islands of theory" that dominate the research on international conflict. As a starting point, this section will link power

cycle theory with prospect theory (and later with the democratic peace hypothesis). If the preceding analysis of deterrence encounters represents a "vertical" extension of power cycle theory to include a wider range of empirical phenomena, the last two sections of this chapter represent the kind of "horizontal" extension that is necessary if we as political scientists hope to develop multi-faceted frameworks for understanding international conflict. The results generated by integrating power cycle theory with both prospect theory and the democratic peace hypothesis are an example of the potential "synergy" that can exist between apparently disparate frameworks.

Combining Critical Periods with the Logic of Prospect Theory:

The theory of power cycles offers a cogent connection between capability changes at the national level and disequilibrium at the systemic level (with the suggestion that systemic instability is most likely when several major states pass through critical points during the same interval). Moreover, it ties this disequilibrium to judgmental errors at the individual level. As already remarked, the junctures of critical points are supposed to raise the officials' uncertainty and anxiety, which in turn contribute to the outbreak of extensive wars.

But should one expect the different critical points to have the same psychological consequences for officials (e.g., Thompson 1983, 157)? One may expect different cognitive and affective distortions to operate when leaders face a reduction in their rate of increasing capabilities compared to when they experience a reduction in their

rate of decreasing capabilities. Similarly, the nature of psychological stress may be quite different for leaders whose country is at its maximum power and poised to become weaker compared to others whose country is at the bottom of its cycle but looking forward to future improvements in its status. Whereas the former may have an impulse to launch a preventive war, the latter would presumably benefit from waiting.

Research on power cycles has heretofore offered some insights on the above question. The inflection points appear to be more dangerous moments for extensive wars than the turning points (Doran 2001) Doran (2001, 134-140, 232-236) also argued that the relevant dynamic affecting war propensity tends to be a result of the gains made by the state at the bottom of the central system, gains that come primarily at the expense of the state at the top of this system and cause the latter's power cycle to peak. In the early 1900s, Russia's relative gains brought about Germany's relative decline, and more recently, changes involving Kuwait and Saudi Arabia had the same deleterious effect on Iraq's position in the Persian Gulf system (Parasiliti 2003). In both cases, the target of the top state's animosity turned out to be the one(s) that was responsible for the onset of its relative decline. This matching of belligerents would imply, however, that states at the high and low turning points (rather than the inflection points) are more likely to find themselves on opposite sides of a military conflict.

Whereas critical points in the power cycle engender uncertainty for officials, this uncertainty can have opposite behavioral consequences depending on these

officials' risk propensity as Huth *et al* (1993, 611; 1992, 488) have noted. This analysis follows their lead, as uncertainty (implied by the critical points) is interacted with risk propensity, thereby offering a more explicit and coherent set of inferences that link phenomena at the individual, state, and systemic levels of analysis.

It is possible to draw on prospect theory for insights about how leaders will react when faced with different critical points. This theory contends that people do not follow the maxims of expected utility when making decisions (Hebron and James 1997; Levy 1997, 1996; Kahneman and Tversky 2000, 1979; McDermott 1998; Quattrone and Tversky 1988; Tversky and Kahneman 1977). They are more inclined to take risks in order to avoid losses than to pursue gains. Thus, their risk propensity depends on their perception of whether they are in the domain of loss or the domain of gain. They are prone to be attached to their current possessions, so that this "endowment effect" encourages them to exaggerate the value of their own concessions relative to those made by others and causes a reluctance to "downsize" their customary role. People's reference point therefore creates an anchor bias, because they typically do not adjust their expectations as much as warranted by new information.

These judgmental biases appear to be common across different national and organizational cultures. Yet, to be forthright, prospect theory does not offer specific discriminations beyond some expectations of general tendencies. Specifically, how is one to characterize the situation faced by leaders of countries which are just passing through each of the four critical points? The direction of a country's trajectory and its

rate of acceleration or deceleration could put its leaders in different domains of gain or loss. Leaders are likely to feel that they are operating in the domain of loss after they have just passed the high point, and they tend to see themselves in the domain of gain when they sense that they have just left the low point. At the two inflection points, leaders simultaneously locate themselves in different domains of both gain and loss. Table 5 shows the different combinations at each critical point.

At *H*, leaders find themselves entering a domain of loss as both their country's direction and rate of growth are headed in an unfavorable direction. This was the case for Germany at the time of the Moroccan Crisis. After an extended period of growth during the nineteenth century, German leaders had become accustomed to consistently optimistic projections about future power share and the potential for an increase level of prestige and influence in the global arena. Around 1904, however, German growth suddenly ceased due to the rapid expansion of the United States, Japan and particularly Russia. This led to anxiety, panic, and an urgent desire to expand German role in the system before its bargaining power vis-à-vis its rivals deteriorated any further. In short, German leaders were instantly faced with a closing window of opportunity when it came to addressing their perceived role deficit. The German challenge to Britain and France in Morocco was an aggressive attempt to address this role deficit by usurping the position of the latter two countries in Northern Africa and Europe at large.

Table 5: The Logic of Assigning Risk Propensity to Different Critical Period Types

		Direction	
		Domain of Gain	***Domain of Loss***
Rate	***Domain of Gain***	Low Turning Point	Second Inflection Point
	Domain of Loss	First Inflection Point	High Turning Point

Proposed Order of Risk Propensity (Highest to Lowest):

1. High Turning Point
2. First and Second Inflection Points
3. Low Turning Point

High Turning Point and First Inflection Point > Low Turning Point and Second Inflection Point

For countries at I_2, their power trajectory is still downward (placing them in the domain of loss), but their rate of descent is now slowing (placing them in the domain of gain). It was Britain that found itself in this position between 1899 and 1914. At the time of the Moroccan Crisis, British leaders were thus experiencing the emotions associated with the second inflection point on their relative capability cycle. For more than a century, the British Empire had become accustomed to an increasingly precipitous decline in relative power share. By the turn of the century, this decline forced troop redistribution and restricted colonial ambitions that symbolized a gradual role retrenchment. Shortly thereafter, however, British decline began to slow. This bolstered the confidence of leaders such as the new King, Edward VII. With better prospects for future growth, Edward was tempted with visions of renewed grandeur for the British Empire and was immediately more reluctant to cede any further influence to other powers. This was particularly the case with Germany, which was the most vocal and active in its attempts to wrestle prestige from the British. The events surrounding the Moroccan Crisis are perfect illustrations of this tug of war for international role that takes place between Britain, Germany, and the rest of the major power system. The dynamic experienced by the British at the second inflection point in 1902 is reversed at I_1; while the direction of relative capability change is still positive (indicating a domain of gain), the rate of capability growth has suddenly slowed after some period of exponential gains (indicating a domain of loss). Finally, at L, leaders find themselves entering a domain of gain both in terms of the direction and rate of change in capability.

As already noted, prospect theory appears to be silent on whether people should be more sensitive to an unwanted reversal in the direction or rate of change in their status. I hypothesize that a sense of loss should be felt most acutely when *both* elements are present — that is, when officials are at *H*, facing an acceleration of decline. They should be the most risk acceptant in this situation. Conversely, they should be the least risk acceptant at *L* when they can look forward to an acceleration of improvement in their state's position. As already mentioned, Doran and Parsons (1980) found that the two inflection points have tended to be more destabilizing than the two turning points. Their finding implies that leaders are more sensitive to a reversal in the rate of change in their country's capability than to a reversal in its direction. Thus, for the two inflection points, I hypothesize that leaders will pay more attention to the rate of change in their country's power trajectory than whether this trajectory is still rising or failing. That is, the former is more decisive than the latter in inclining leaders to believe that they are in the domain of gain or loss. With this in mind, I_1 is expected to generate somewhat more risk acceptance than I_2.

By combining a concern for rate change and direction change, I advance a different set of empirical expectations which argues that *H* should be more pregnant with destabilizing potentials than I_1 and I_2 although, in agreement with Doran and Parsons, I_1 and I_2 should in turn suggest greater prospects for this danger than *L*. In further clarification of my rationale, I hypothesize that, for major powers, conflict behavior should be highest at the peak of their power cycle (i.e., at *H*). Upon reaching this critical point, the leaders of such states suddenly realize that they have

already attained their maximum power and are about to enter a period of precipitous decline. They find themselves in the domain of loss, both with respect to their state's past trajectory and with respect to the growth prospects of their competitors. This situation may be a cause for panic and, according to prospect theory, a desire to avert loss inclines these officials to be risk acceptant. Over time, the balance of forces between that state and potential enemies becomes less favorable.

Leaders of states situated at the first inflection point (i.e., I_1) will be slightly less prone to conflict behavior when compared to their counterparts presiding over states passing through the peak of relative power. They are faced with the prospect of slowing growth and eventual decline. The impending deceleration in the rate of their capability increase may be a source of frustration if, as likely, their aspirations (or ascending status) have not in their view been sufficiently recognized by the other states during the prior years of rapid growth. This sense of relative deprivation tends to be exacerbated upon these officials' realization that their state's growth rate has begun to fall. The consequent feeling of loss, albeit only in a reduced rate of growth, again inclines them to accept more risks and become more confrontational in their foreign policy.

Following the same logic, officials representing states at the second inflection point (i.e., I_2) are somewhat less likely to engage in, or initiated interstate war or deterrence encounters. Their state is in an ongoing process of downward mobility, although the rate of this decline has apparently abated. Thus, they are still in the domain of loss. They may mistakenly interpret the deceleration of this decline as a

sign of national revival, and consequently develop a false sense of confidence. Leaders of states at the low point in their power cycle are least likely to become involved in or start confrontations. These officials should be the most risk averse, and they have the most to gain by waiting. Their position should improve over time.

Returning to the context of the Moroccan Crisis, I find that German leaders at the high turning point (such as Wilhelm and Bulow) are simultaneously more aggressive and anxious than are their British counterparts (Edward VII and Lansdowne) who are passing through the second inflection point. While British leaders are only in the domain of loss with regard to direction of capability change, German leaders place themselves in the domain of loss with respect to both direction and rate of capability change. Leaders in both countries, however, exhibit more emotional trauma and uncertainty than do French leaders such as Délcassé, who were not subjected to a critical period in 1905.

Consequent Propositions:

It is possible to test these arguments by analyzing conflict behavior at each of the four types of critical period. Based on the logic presented above I argue here that countries passing through H will have the highest rate of war participation, war initiation, deterrence involvement and deterrence challenges. I_1 and I_2 should have roughly equal means for all four variables, although for the reasons stated above, I_1 should have a slightly higher mean for most indicators. States passing through L will have the lowest rates of conflict behavior when all critical periods are compared.

Hebron and James (1997) analyzed the differences in the proportion of international crises experienced by the great powers between the upward (*H* and I_1) and downward (*L* and I_2) slope of their respective cycle. Following from that study, I argue that states passing through critical periods on the upward slope of their capability cycle will exhibit higher rates of conflict behavior than they will when passing through critical periods on the downward portion of the cycle. Table 5 ranks the individual and pairs of critical periods based on hypothesized risk propensity. The propositions that are to be tested follow the table.

Proposition 7: When passing through the high turning point (H) on their relative capability cycle, major powers will be more prone to conflict behavior (as defined by war participation, war initiation, deterrence involvement and deterrence challenges) than when they pass through the remaining three critical periods.

Proposition 8: The two inflection points (I_1 and I_2) will lead to roughly equal rates of conflict (as defined by Hypothesis 7), although the first inflection point should rank slightly higher because of the relatively greater attention leaders place on rate as an indicator of domains of loss versus gain.

Proposition 9: The low turning point will generate the lowest overall rate of participation in, and initiation of, major power war and deterrence encounters.

Proposition 10: While passing through critical periods on the upward slope of their relative capability cycle (H and I_1), states will exhibit more conflict behavior than when they are passing through the periods on the downward portion of their cycle (L and I_2).

The variables of interest – war participation, war initiation, deterrence involvement and deterrence challenges – have been defined earlier in this chapter. Based on the arguments presented earlier, each variable is defined only by the date of onset for each confrontation. For each type of critical point, means are established for all conflict measures, and then a rank order is established. Critical periods are assigned a rank from 1 (highest mean / most conflict behavior, or in the language of prospect theory – highest risk propensity) to 4 (lowest mean). After rankings are assigned for each of the four conflict measures, a composite rank is determined by calculating the average rank of each point type. A further series of comparison of means tests are conducted, matching rates of conflict behavior across all four measures for critical points on the upward slope versus their counterparts on the downward slope.

Results and Discussion:

For all four measures, either the high turning points or the first inflection points generate the highest rates of conflict behavior. According to the inferences about risk propensity drawn from prospect theory, the results in Table 6 make sense. When at *H*, leaders place themselves in the domain of loss with regard to both direction and rate of power growth. This should result in a high risk propensity. When deterrence involvement and deterrence challenges are addressed, the high level of risk propensity at *H* is correlated with the highest rate of occurrence (0.2625 and 0.1625 for

involvement and challenges, respectively). In other words, during the 80 total years coded as part of a high turning point critical period, there are 21 cases of major power involvement in a deterrence encounter (for a mean of 0.2625). During those same 80 years, there are 13 cases of a major power challenging the status quo by initiating a confrontation (for a mean of 0.1625). If the focus is shifted to war participation and initiation, however, it is the first inflection point that generates the most frequent occurrence of conflict (0.1765 and 0.1176 for war participation and initiation, respectively). The high turning point *H* is third in regards to participation (0.0875) and initiation (0.0500). The first inflection point, meanwhile, falls to second for deterrence challenges (0.1569) and third for deterrence involvement (0.2157). If the ranks of these two types of critical points are averaged over all four measures of international conflict, the first inflection point has a slightly better composite rank than does the high turning point, by a margin of 1.75 to 2.00.

Table 6: Conflict Behavior at Different Critical Period Types

	n	*Means (Rank)*	t *Value*[a]	*Probability*[b]
A. War Participation				
High Point	7	0.0875 (3)		
First Inflection	9	0.1765 (1)		
Second Inflection	6	0.0545 (4)		
Low Point	8	0.1194 (2)		
High Point and First Inflection versus	16	0.1221		
Second Inflection and Low Point	14	0.0791	1.2587	0.053
B. War Initiation				
High Point	4	0.0500 (3)		
First Inflection	6	0.1176 (1)		
Second Inflection	3	0.0273 (4)		
Low Point	4	0.0597 (2)		
High Point and First Inflection versus	10	0.0763		
Second Inflection and Low Point	7	0.0395	1.3976	0.049
C. Deterrence Involvement				
High Point	21	0.2625 (1)		
First Inflection	11	0.2157 (3)		
Second Inflection	28	0.2545 (2)		
Low Point	13	0.1940 (4)		
High Point and First Inflection versus	32	0.2443		
Second Inflection and Low Point	41	0.2316	0.2570	0.200
D. Deterrence Challenges				
High Point	13	0.1625 (1)		
First Inflection	8	0.1569 (2)		
Second Inflection	13	0.1182 (4)		
Low Point	9	0.1343 (3)		
High Point and First Inflection versus	21	0.1603		
Second Inflection and Low Point	22	0.1243	0.8998	0.097
E. Composite Risk Ranking				
High Point		(3+3+1+1) / 4 =	2.00	2nd
First Inflection		(1+1+3+2) / 4 =	1.75	1st
Second Inflection		(4+4+2+4) / 4 =	3.50	4th
Low Point		(2+2+4+3) / 4 =	2.75	3rd

[a] Assuming equal variances
[b] One-tailed significance test

The low turning point, which is proposed to generate the least amount of conflict behavior, ranks next on the composite scale with an average rank of 2.75. Point *L* actually generates the second highest rate of both war participation (0.1194) and initiation (0.0597).[15] In terms of deterrence involvement, however, the low turning point ranks last with a mean of 0.1940. When deterrence challenges are addressed, point *L* ranks third with a mean of 0.1343.[16] According to the composite ranking, the second inflection point, with an average rank of 3.50, generates the lowest level of conflict behavior. Indeed, I_2 is associated with the lowest rates of conflict occurrence in every measure except deterrence involvement, where it ranks second with a mean 0.2545.

Thus, as an overall predictor of conflict behavior as defined by four separate variables, the first inflection point is found to have the greatest impact. The high turning point follows closely in second, while the low turning point and second inflection point rank a distant third and fourth. As illustrated by these results, there is a clear distinction between the critical points on the upward slope and those on the downward slope. For every measure of conflict, *H* and I_1 generate a higher mean than

[15] One possible explanation for this pattern lies in the hesitancy that might result from the "mixed" domains of the two inflection points. Perhaps leaders are more likely to take risks when faced with a uniform exposure to either the domain of gain or the domain of loss. That is, it may not be the specific nature of the domain (loss or gain) that generates conflict behavior, but rather the clarity with which a leader experiences the panic of the domain of loss or the over-confidence of the domain of gain. For the former, this clarity would exist at the high turning point, while for the latter it would exist at the low turning point.

[16] Thus, findings from an examination of deterrence encounters are more in line with the expectations of prospect theory, as are the compiled results that account for all four measures of interstate conflict.

L and I_2. With the exception of the test conducted on deterrence involvement, this difference in means is statistically significant.

If there is a general implication from these results, it is that leaders pay greatest attention to the *rate* of capability change when they place themselves in the domain of gain or the domain of loss. The two inflection points are ranked polar opposites in terms of mean occurrence of conflict behavior. The first inflection, which places leaders in the domain of gain with respect to direction and the domain of loss with respect to rate, ranks highest. The second inflection, which places leaders in the domain of loss with respect to direction and the domain of gain with respect to rate, ranks last. If risk propensity can indeed be inferred from frequency of conflict behavior, it would seem that the importance of the *rate* of capability change completely overrides that of the *direction* of change. Intuitively, this makes sense when placed within the context of power cycle theory. Because the sudden and unpredictable nature of change at critical points is assumed to be the prime culprit behind the uncertainty, panic and anxiety that leads to conflict behavior, it stands to reason that those critical points that come as the greatest surprise will generate the most trauma for leaders. While the turning points cannot be predicted entirely, it is likely obvious to leaders that their rate of growth (or decline) is diminishing as time passes. A reversal in direction might even be anticipated. The inflection points, however, are total surprises – exponential growth (or decline) is suddenly and immediately replaced by a diminishing rate of change. Thus, at the first inflection point, the shock and feeling of loss is most drastic, and at the second inflection point,

the pleasant surprise is unforeseen but very welcome. In the first case, conflict is most likely (as leaders place themselves most firmly in the domain of loss), while in the second case conflict is least likely (as leaders place themselves most firmly in the domain of gain).

In summary, the results from this analysis lend mixed support to Propositions 7 through 10. As much as mean occurrence of conflict across the given measures is an accurate extension of risk propensity at each critical point type, the resulting ranks tend to be within the ballpark of those suggested. For instance, no point type ranked more than one spot above or below where it was proposed to belong. At the same time, no point type actually ranked at the position presented in the propositions. Table 7 illustrates the hypothesized and empirical rankings for individual and pairs of critical point types. As a whole, then, it seems fair to conclude that Propositions 7 through 9 receive "mixed" support from these results. Proposition 10 does receive clear support, however, as the high turning point and first inflection point generate consistent and significantly higher means than the low turning point and second inflection point. This finding is compatible with the analysis conducted by Hebron and James (1997). The result is not surprising if one totals the domains of gain and loss associated with points on the upward slope and those associated with the downward slope. For the "upward" points, there is association with the domain of loss in 3 instances, and the domain of gain in only one (direction of growth at the first inflection point). For "downward" points, there is association with the domain of loss in only one instance (the direction of growth at the second inflection point), and

association with the domain of gain in the other three instances. Finally, this section also has ramifications for the relative importance of role surplus and role deficit in determining conflict behavior. It is important to mention again that role is not explicitly measured and tested in the quantitative portion of this study. Still, it is useful to note that critical points on the upward slope of the relative capability cycle- which are associated with rising powers still looking to address their role deficit – correlate more heavily with conflict behavior than do those critical points on the downward slope – which are experienced by declining powers that are much more likely to be protecting an unwarranted role surplus. Thus, evidence to this point suggests that the frustration over role deficit is more likely to lead to conflict than is the stubborn refusal to rectify one's own role surplus. Ultimately, however, power cycle theory would emphasize the devastating interactive effects of these two phenomena.

Table 7: Comparing Hypothesized and Empirical Ranks

	Hypothesized Rank	Empirical Rank
Individual Critical Point Types	High Turning Point First Inflection Point Second Inflection Point Low Turning Point	First Inflection Point High Turning Point Low Turning Point Second Inflection Point
Pairs of Critical Point Types	High Turning Point and First Inflection Point > Low Turning Point and Second Inflection Point	High Turning Point and First Inflection Point > Low Turning Point and Second Inflection Point

Power Cycles and the Democratic Peace

The preceding section established that each type of critical period has a significantly different effect on major power conflict behavior. In this section, I twist this line of reasoning to ask: Do critical periods have a different effect on different regime types? Are democracies more immune to the alleged psychological, cognitive and emotional impact of these points?

> "Structurally, the constraints of checks and balances, division of power, and the need for public debate to enlist widespread support will slow decisions to use large-scale violence and reduce the likelihood that such decisions will be made" (Russett 1993, 40).

There is not an existing literature than explicitly links the democratic peace and power cycle theories. There are parts of the democratic peace literature, however, that are substantively relevant to the question at hand. Hewitt and Wilkenfeld (1996) have produced evidence that suggests democracies, regardless of their opponent are less likely to escalate minor disputes into more large-scale conflict. Other authors have argued that the responsibility of democratic leaders to voter backlash creates a situation where democratic states are forced to "win quickly", withdraw or accept non-victory (Bennett and Stamm 1998). Dan Reiter and Allan Stamm (1998) illustrate this point by citing U.S. negotiations to end the Vietnam War, which could have conceivable escalated even further under different circumstances. Any of these alternatives are likely to lead to an aversion toward the major power wars that typically include extensive human and material costs. In addition, early arguments for

democratic peace showed that institutional constraints in the form of checks and balances resulted in an overall more dovish attitude for democracies (Bueno de Mesquita and Lalman 1992). More recent arguments have focused on differences in rent seeking, audience costs and size of the selectorate in each regime type (Lake 1992; Fearon 1994; Bueno de Mesquita et al 1998). Although most empirical testing of these structural arguments has been done using dyadic relationships, the causal mechanisms should also be relevant in the monadic tests that are of interest here. While audience costs, for example, might be lower for a democracy initiating against an autocracy, the vast majority of structural constraints are present regardless of the potential opponent. Furthermore, the presence or absence of a critical period should not change the fundamental constraints facing a government on the brink of major war.

By integrating some crucial aspects of the democratic peace hypothesis with the key puzzles of power cycle theory I argue that democracies are: 1) In absolute terms, not greatly affected by critical periods; 2) In relative terms, much less affected by critical periods than are non-democracies. While this argument is most directly applicable to the interstate war, I argue that the same principles should apply to deterrence encounters, as they have the potential to escalate into war as time moves on. Anxiety, panic and/or overconfidence that might accompany critical points is diffused among a decentralized decision making body, while in non-democracies, this emotional trauma can have a tremendous impact on a singular decision maker that might take a country to war. Furthermore, the inclusion of the public in the

formulation of foreign policy objectives and the accountability of the government in times of war may make it easier for democracies to adopt less violent strategies for addressing role deficits and more rewarding to relinquish any role surplus without resorting to a conflict that the public may not support. Additional flexibility in terms of role adjustment may result from a higher turnover rate in governmental leadership for democracies. It seems intuitive that newly elected governments will be more apt to revise (and adjust) expectations of international role than will leaders that have been entrenched in power for an extended period of time. In such a situation, it will be more difficult for a country to adjust to the "shifting tides of history", because their own government has remained unchanged.

The following analysis compares conflict behavior of democracies and autocracies during critical and non-critical periods. Comparison of means tests will again be used to evaluate the rates of war participation, war initiation, deterrence involvement and deterrence initiation for both regime types.

Proposition 11: If democratic leaders are less susceptible to the pitfalls of critical periods, democracies should exhibit an overall rate of monadic conflict behavior (as defined by war participation, war initiation, deterrence involvement and deterrence challenges) that is significantly lower than that of their autocratic counterparts. Furthermore, the conflict behavior of democratic leaders will not be affected by critical periods in any significant manner. Conversely, autocracies will engage in significantly more interstate conflict during critical periods than they will at all other times.

Data and Methods:

The four measures of conflict behavior are identical to those used in the preceding section. Of the 1,068 total country-years that comprise the dataset under examination, 483 are coded as democratic and 585 are coded as autocratic. For example, Britain is a member of the major power system for 185 years, during all of which they are a democracy. Consequently, Britain is responsible for 185 of the 483 country-years coded as democratic. A series of comparison of means tests are then run. To compare monadic conflict behavior of democracies and autocracies without regard for the presence or absence of critical periods, the mean rate of war participation, initiation, deterrence involvement and challenges is determined for each regime type.

Results and Discussion:

Across all four measures, autocratic states are found to exhibit higher levels of conflict behavior than are democracies. Table 8 shows that the difference in means is significant for all measures except that indicating frequency of major power war participation. For this measure, autocracies have a mean occurrence rate of 0.0769, compared to 0.0683 for democracies. This means that during the 585 country-years coded as "autocratic", there are 45 cases of major power war participation. During the

483 years coded as "democratic", there are 33 cases. So, when conflict behavior (defined as war participation) is analyzed without regard to the opponent in any given case, democracies and autocracies are found to generate roughly equal results. For every other measure of international conflict behavior, however, autocracies engage in confrontation at a much higher frequency.

In terms of war initiation, the difference in means (0.0496 for autocracies and 0.0290 for democracies) is significant at the $p < 0.026$ level. Means for deterrence involvement (0.2308 and 0.1573, respectively) and deterrence challenges (0.2359 and 0.0766) are even more significant in their difference. For the involvement measure, the difference in means is significant at the $p<0.003$ level. Autocracies initiate deterrence challenges at roughly three times the rate of their democratic counterparts, a difference significant at the $p<0.000$ level. Thus, the evidence generated by these initial tests strongly supports a "monadic" version of the democratic peace hypothesis. Regardless of opposing state's regime type, democracies are less likely to participate in, or initiate major power wars. The results are even more pronounced when attention turns to deterrence encounters between major powers.

Table 8: Comparisons of Means of War Participation and Initiation: Regime Types during Critical and Non-critical Periods

	n	*Means*	t *Value*[a]	*Probability*[b]
A. War Participation (all cases)				
Autocracies	585	0.0769		
Democracies	483	0.0683	0.4975	0.159
B. War Initiation (all cases)				
Autocracies	585	0.0496		
Democracies	483	0.0290	1.6270	0.026
C. Deterrence Involvement (all cases)				
Autocracies	585	0.2308		
Democacies	483	0.1573	2.5280	0.003
D. Deterrence Challenges (all cases)				
Autocracies	585	0.2359		
Democracies	483	0.0766	6.3836	0.000
E. War Participation				
Autocracies				
Non-critical periods	370	0.0595		
Critical periods	215	0.1070	1.9468	0.013
Democracies				
Non-critical periods	390	0.0667		
Critical periods	93	0.0753	0.2697	0.199
F. War Initiation				
Autocracies				
Non-critical periods	370	0.0405		
Critical periods	215	0.0651	1.2333	0.054
Democracies				
Non-critical periods	390	0.0282		
Critical periods	93	0.0323	0.2089	0.203
G. Deterrence Involvement				
Autocracies				
Non-critical periods	370	0.2108		
Critical periods	215	0.2651	1.2679	0.052
Democracies				
Non-critical periods	390	0.1538		
Critical periods	93	0.1720	0.3605	0.179
H. Deterrence Challenges				
Autocracies				
Non-critical periods	370	0.1000		
Critical periods	215	0.1674	2.2815	0.005
Democracies				
Noncritical periods	390	0.0538		
Critical Periods	93	0.0753	0.7391	0.115

[a] Assuming equal variances
[b] One-tailed significance test

Let us now turn our attention to the relative impact of critical periods on both regime types. For this portion of the analysis, tests are run separately for autocracies and democracies. So, the 585 country-years defined as autocratic are split into two groups, based on the presence or absence of a critical period. In this case, 215 of the 585 country-years fall within a critical period (36.75 percent). For democracies, 93 out of 483 years fall within a critical period (19.25 percent). The fact that democracies experience critical periods much less frequently than their autocratic counterparts underlines the possibility that a spurious relationship exists between democracy and peace. Still, it is very unlikely that democracies are more pacific simply because they are not subjected to the trauma of critical periods as much as autocracies.[17]

For every measure of conflict, critical periods have a statistically significant conflict-intensifying effect on autocracies. Autocratic leaders are much more likely to engage in, and initiate wars and deterrence encounters during critical periods than they are during non-critical periods. This could be a result of internal factors such as a lack of checks and balances or lack of accountability through public elections. Also, external factors such perceived threat may make critical periods especially dangerous for non-democracies. The level of statistical significance ranges from the $p<0.056$ level all the way to the level of $p<0.005$. Thus, this evidence suggests that autocracies are extremely prone to the pitfalls of critical periods. As an illustrative example, the

[17] This is doubtful, for a couple of reasons. First, the typical stability of democratic regimes may actually play a role in the lack of sudden and abrupt reversals present in the relative capability cycles of democracies. Second, the relative peacefulness of democracies is confirmed by tests run using the "updated set" of critical periods. In that analysis, democracies are subject to critical periods 29.40 percent of the time, a figure very similar to the rate of 31.97 percent for autocracies.

rate of war participation for autocracies is nearly twice as high during critical periods than during other years.

Democracies, on the other hand, seem to be much less prone to the over-reaction, panic and anxiety that are hypothesized to drive conflict behavior during critical periods. The rate of war participation, war initiation, deterrence involvement and deterrence challenges is consistently higher during critical periods, but this difference is not significant. The largest distinction occurs for deterrence challenges, where the margin (0.0753 for critical periods and 0.0538 for non-critical periods) approaches, but does not reach significance. The results for democracies still suggest that critical periods exert a conflict-intensifying effect on states, regardless of regime type. The fact that autocracies are much more affected by the presence of critical periods, however, implies that there is something inherent about a democratic major power that insulates its leaders from most of the pitfalls that accompany abrupt and drastic reversals in their relative capability cycle. Together, the results in this section lend support to Proposition 11. The idea of a "monadic" democratic peace, along with the immunity (both absolute and relative to autocracies) of democracies to the conflict intensifying effect of critical periods, suggests that there are inherent, structural elements to democracies that make them more pacific.

Implications and Concluding Remarks:

Based on the democracy data used in this study, two out of six major powers are considered democratic as of 1860. By 1939, four out of seven major powers are coded as democracies. By the end of the 20th century, six out of seven are democratic. At the same time, analyses in this chapter show that critical periods are "less critical" for democracies. If the major power system continues to democratize, are the principles of power cycle theory still important? The answer is, on the whole, yes. First, it should be noted that this analysis is just a first pass at interacting regime type and critical periods. Moreover, the results here do indicate that democracies are still more likely to participate in and initiate conflict during critical periods than non-critical periods. The conflict-intensifying effect is just not statistically significant at this point.

More important, it seems premature to accept the spread of democracy to all major powers as *fait accompli*. Indeed, the events of the past three years raise doubt as to whether we are even headed in that direction at all. In today's world, Russia's venture into democracy is still very uncertain in its outcome, and authoritarianism in China has been very slow in its decay. Furthermore, the possible entry of India, Indonesia and the quickly growing Islamic states into the major power system cast major doubt on the hypothesis that the system will be an entirely democratic one anytime in the near future. Indeed, the increasingly complex set of state and non-state

actors (such as Al-Qaeda) on the world stage only serve to exacerbate uncertainty in the decision-making environment of critical periods.

Chapter Conclusion

This statistical analysis generates strong and consistent support for the importance of power cycle theory in four ways. First, the original results obtained by Doran and Parsons are confirmed by extending the data analysis to included the years beyond 1975. Critical periods are positively correlated to major power war participation, initiation and severity. These relationships remain robust when an updated, improved method for calculating critical periods is employed. Thus, the existing empirical support for power cycle theory is greatly solidified by the analysis presented here.

Second, the old empirical domain of the theory is stretched beyond interstate war to include major power deterrence. This is important because it extends the behavioral impact of power cycle theory to include lower levels of conflict in the international system. Major powers are significantly more likely to be engage in a deterrence encounter while experiencing a critical period. An even stronger relationship is found between a country's role as challenger in these encounters, and their passage through a critical period. Furthermore, deterrence episodes are much more likely to escalate to war when one of the participating states is in a critical period. In other words, countries are more apt to back down in deterrence when they are in "normal" phases of their relative capability cycle.

The third bundle of findings integrates power cycle theory with prospect theory to show that states exhibit different conflict behavior at different types of critical points. By drawing clues from prospect theory, it is possible to place each type of critical point within the context of domains of gain and loss, and successfully predict the relative risk propensity that each point generates. The high turning points and first inflection points, which prospect theory predicts will engender the highest risk propensity, are most closely associated with conflict behavior. This is most notable in terms of war initiation, deterrence participation and deterrence challenges. In almost every case, the low turning point and second inflection points, expected to generate the lowest risk propensity, are least associated with conflict behavior. As a pair, the high turning points and first inflection points are correlated with a significantly higher rate of conflict behavior than the low turning points and second inflection points The integration of power cycle theory and prospect theory not only allows the analyst to develop a more detailed connection between critical periods and interstate conflict, it also serves as positive example of a research design that draws theoretical insights from more than one particular research program.

Just as prospect theory is used to show how different types of critical periods affect states in distinct ways, insights from the democratic peace research program are applied to power cycle theory in order to suggest that - depending on their regime type – major powers are more or less successful in coping with the onset of a critical period. Specifically, there is strong evidence suggesting that democracies are less susceptible to the pitfalls of critical periods that produce conflict behavior. For

democracies, critical periods do not increase the rate of war initiation or deterrence challenges in a statistically significant manner. Autocracies on the other hand, see a significant rise in war participation, war initiation, deterrence participation and deterrence challenges when they pass through a critical period. This is due to several factors: The diffusion of decision making power among different branches of government and the lengthy and difficult process of securing public support for interstate conflict is likely to diffuse the emotional trauma of a critical point among a larger body of individuals. The higher turnover rate in governmental leadership along with accountability through elections suggests that democracies may be more flexible when it comes to addressing their frustrations over role deficit and reluctance to part with their role surplus. The analysis presented here represents a rough first pass at interacting regime type, critical periods and different measures of conflict behavior. Pursuing this connection more closely is a very promising direction for future research.

In summary, this chapter has underlined the empirical strength of power cycle theory, extended its empirical domain to include major power deterrence encounters, explored behavioral variation generated by different types of critical periods and implied that democracy has a significant conditioning effect on the relationship between critical periods and interstate conflict. A summary and evaluation of all propositions in this chapter is presented in Appendix 12. The correlation between structural change (as represented by critical periods) and bellicosity has been established. Throughout the chapter, references have been made to the behavior of

British, German and French leaders during the Moroccan Crisis. In the following chapter, the discussion of this case will be greatly expanded with the goal of clarifying the emotional, psychological and cognitive impact of critical points on the decision-making calculus of individual leaders.

CHAPTER III

POWER CYCLE THEORY IN DETAIL: A CASE STUDY OF THE 1905 MOROCCAN CRISIS

I argue throughout this dissertation that the power cycle theory of international politics is most successful at offering a complete account of the relationship between structural change and the foreign policy decision to go to war. While the preceding statistical analysis serves to confirm and expand the empirical record of power cycle theory through an extensive large-N analysis, I will turn my attention in this chapter to the substantive relationship between critical periods of structural change and emotional, psychological and cognitive issues at the level of the individual decision maker. I investigate this relationship by applying power cycle theory to an understanding of the Moroccan Crisis of 1905. It was during this crisis and the intervening years that some of the primary conditions for the First World War first emerged and then later became entrenched.[1]

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[1] The emergence of the Entente Cordiale was signaled by Anglo-French cooperation during the 1905 crisis. Rapprochement between the British and French, coupled with the existing Franco-Russian alliance set in place the major alliance structure that would dominate the political landscape leading to 1914. The end of the Agadir Crisis in 1911 was followed less than twelve months later by the famous "War Cabinet" meeting in Berlin, where German leaders resigned themselves to an inevitable conflict with France, Russia and most likely Great Britain. Among international relations scholars, there is perhaps no time period that has received greater attention than that which begins with the French defeat at the hands of the Germans in 1870 and ends with the July Crisis of 1914. A number of theoretical frameworks have been constructed in an attempt to establish a causal link between certain conditions of this era and the outbreak of war. Some theories have focused on structural phenomena such as the long term bilateral power transition between a declining British empire and an increasingly powerful German state (Copeland 2000; Organski 1958; Organski and Kugler 1980; Kugler and Lemke 1996; Tammen et al 2000). Others have addressed the structure of the European state system, and specifically a rigid alliance system that forced the hand of certain leaders that would otherwise

In the case of the Moroccan Crises and the years leading to the First World War, the power cycle framework distinguishes itself by emphasizing the importance of three particular issues: 1) The significance of multilateral rather than bilateral power shifts within the European state system, 2) The goal of eliminating a role deficit or protecting a role surplus as motivation for foreign policy in each power, and most importantly, 3) The traumatic impact of critical periods on the psychological and cognitive processes of individual governmental leaders. This final issue will receive the greatest amount of attention in this chapter, as it is the least developed aspect of the power cycle framework. By examining the behavior and emotional state of leaders like King Edward VII, Theophile Délcassé and Kaiser Wilhelm II, it will be easier to uncover the impact of critical periods of structural change in the individual governmental leaders that ultimately made the decision to go to war. This is a necessary, and important final step in creating a more holistic explanation of interstate conflict that can address important variables at multiple levels of analysis. The primary goal of this chapter is *not* to provide an exhaustive historical account of the crisis.[2] Although a detailed summary of the most salient events comprises a significant portion of this chapter, the core analysis is centered on a discussion of the relevant capability shifts taking place in Europe at the time of the Moroccan Crisis, and how the specific nature of these shifts shapes our expectations about behavior

have been reluctant to move along the road to war (Bueno de Mesquita 1981; Ray 1990). At the level of the individual leader, some scholars cite a widespread adherence to the "cult of the offensive" as a belief system that predisposed decision-makers to hasty mobilizations that were perceived to be irreversible (Bartlett 1984; Joll 1984).

[2]Extensive reviews can be found in Albertini (1967), Anderson (1933), Barlow (1940), McCullough (1989), Fisher (1961) and Geiss (1976).

among British, French and German leaders during the Crisis. Specifically, I will showcase the ability of the power cycle framework to account for 1) Chaotic and rapidly changing balance of power within the system during the time in question, 2) The manner in which British and French policy was guided by a motivation to protect their existing role surplus, and German policy by their desire to rectify a longstanding role deficit, and 3) The emotional trauma that existed at the time for leaders experiencing a critical point on their country's relative capability cycle. By analyzing primary documents, personal memoirs, letters and historical accounts from the Moroccan Crisis, it is easier to get a "ground-level view" of how important the fundamental assumptions of power cycle theory (multi-lateral power shifts, power-role gaps and the trauma of critical points) are in shaping the decision making environment of governmental leaders. Methodologically, this case study serves as the second leg of methodological triangulation employed in this dissertation. It supplements, and expands upon the conclusions developed in the preceding statistical analysis. The Moroccan Crisis of 1905 is particularly well-suited for this dissertation because of three reasons:

- It is a fundamental precursor to the First World War, which is a topic of crucial importance to the field of interstate conflict
- As an example of a deterrence encounter between major powers, it serves to extend the power cycle framework toward new ground that is characterized by a better explanation of less severe forms of confrontation between states

- There is variation in the independent variable of interest – that is the existence of critical periods for the countries to be studied. At the time of the Moroccan Crisis in 1905, both Britain and Germany were experiencing critical periods, while France was not. Furthermore, British (passing through the second inflection point) and German (passing through the high turning point) leaders were subjected to disparate dynamics as they were traversing different types of critical points

The rest of this chapter will be organized as follows: First, a brief overview of the Moroccan Crisis will be presented in order to give the reader some background information relating to that event. Next this summary will be placed within the context of the relevant capability shifts that were occurring at that point in history. The nature of the power shifts taking place, and potential for resulting critical points, will guide our expectations of British, French and German behavior. Using these expectations as an outline, relevant evidence will be presented in three areas: multilateral capability shifts, power-role gaps, and the psychological, emotional and cognitive trauma engendered by passage through a critical point. As mentioned, the third and final area of analysis is most important to the overall objectives of this dissertation. The last section of this chapter will present some concluding remarks, and offer some remaining puzzles that will be addressed in the analysis of the classroom simulation exercises.

A Summary Background of the Moroccan Crisis

Morocco as a Focal Point of Pre-War Tension:

At the start of the 20th century, Morocco was an exception to the rule – an economically backward country in close proximity to Europe, but still politically sovereign. Moroccan independence was due to skillful leadership during the colonial era, and a high level of competition among those European powers interested in penetrating the country. Sultan Mulai-el-Hassan ruled Morocco during the last quarter of the nineteenth century with the aide of his *grand vizier* Ba-Ahmed who had a reputation as a clever negotiator and diplomat (Anderson 1933). Hassan and Ba-Ahmed formed the foundation of a government that was unusually strong for a country used to an almost constant state of semi-anarchy (McCullough 1989). The loyalty of the army guaranteed higher tax revenue which in turn allowed the Sultan to maintain the basic public services needed to prevent discontent and rebellion. Business and tribal leaders alike supported the rule of Sultan Hassan, and his strong domestic position certainly made European colonial penetration more difficult because of an inability to exploit conflict between rival factions with the Moroccan government and citizenry. Moroccan independence, however, was more a result of the international competition over it rather than any inherent immunity to colonization. Morocco was seen as the "Pearl of North Africa" with its abundant mineral wealth, grazing pasture and several regions that could be transformed into

arable land with the import of modern irrigation methods (Anderson 1930). This widespread European belief of great resource wealth in Morocco resulted in intense competition among colonial powers that prevented any one country from gaining a stranglehold in the region.[3] Geopolitical factors were also a consideration. Morocco lay on the Straits of Gibraltar, and it was in close proximity to other North African possessions such as Algeria (France), Tunis (Italy) and Rio de Oro (Spain). The British also used Morocco as a coaling station on the way to South Africa. Because each country feared the ramifications of another gaining primary control in Morocco, there was a concerted effort at maintaining the status quo of commercial equality in, and political independence for Morocco. This effort was officially recognized by the Treaty of Madrid in 1880, which guaranteed commercial equality in Morocco to all signatories by granting them most favored nation trading status. Importantly, the treaty also granted each power the right to be consulted before any other power implemented any political or economic policy that might alter the economic or political status quo in Morocco (Albertini 1967).[4]

[3] While most colonial territories were, by definition, dominated by a single outside power, investment in and trade with Morocco was diluted among France (31 percent), Britain (41 percent), Germany (9 percent), Spain (8 percent) and other powers (Anderson 1930, 2).

[4] Although the full text of the Treaty of Madrid is too lengthy to be included here, an English translation of the main articles and a list of all signatories can be found on line at the following web address: http://www.warflag.com/shadow/history/treaties/moroc1880.htm

Unrest at the Beginning of the New Century:

In the first years of the twentieth century, however, domestic and international factors would once again combine to affect the political landscape in Morocco. The death of Hassan in 1894 and Ba-Ahmed in 1901 led to the collapse of any stable governing force. Out of the confusion emerged a young and inexperienced Abdel-Aziz, who assumed the position of Sultan. Aziz was an eccentric leader who spent more time and money on his collection of foreign dolls and bicycles than he did in the maintenance of order and control in Morocco.[5] His spending was so lavish, and ability to govern so lacking, that soon the government's treasury was nearly empty. Aziz was not a strongly religious leader, and in an effort to boost tax revenue he even installed a tax code that violated certain principles of the Koran (Anderson 1933). For understandable reasons, this strategy failed to bolster the treasury while at the same time isolating him from his subjects. His association with Christian Europeans was another factor that alienated him from a populace that could only be described as devout Muslim. After some time, Aziz's financial mistakes and general unpopularity cost him the support of the army. Rebellions in the north and south soon broke out, and by 1903, the Sultan's authority was relegated to just a few towns and his headquarters in Fez. A general situation of anarchy presided over Morocco, causing European politicians to note that "Morocco is decaying and might collapse at any

[5] According to Walter Harris, Aziz had dozens of foreign bicycles, cameras and pianos, and was also almost never without the company of his two British confidents, Sir Harry MacClean and Harris himself (who was a correspondent for the *London Times*).

moment."[6] Sultan Aziz began to turn to Europe for monetary assistance, and also for help in protecting foreign residents in areas beyond his control. The inability of Aziz to rule any part of Morocco save a few isolated cities offered the chance for interested European powers to assert themselves and take greater control over the country, perhaps even establish a protectorate like they had in so many other regions in the world.

The French Move on Morocco:

While the deteriorating situation in Morocco was known in all the major European capitals, the international political situation left France as the only country well suited to commit sufficient resources to a greater political and economic penetration of the region. The other major powers with a general interest in asserting greater control in Morocco were Britain, Italy, Spain and Germany. By 1900, Britain was involved and exhausted by the Boer War in Southern Africa, Italy was still recovering from its humiliation in Abyssinia (1896) and Spain had just been defeated by the United States (1898). Germany, while not directly entangled in outright conflict, was unwilling to make a bold move in Morocco for fear of further isolating itself diplomatically.[7] More important, German commercial gains in the country had

[6] This quote is attributed to British Prime Minister Salisbury, in the memoirs of Count Bulow, who was German Chancellor at the time.

[7] The Germans were engaged in negotiations with the British at the time, in an attempt to bolster their alliance portfolio in response to the Franco-Russian alliance of 1894. Tension between Austria-Hungary and Italy made the existence of the Triple Alliance a tenuous one, and the Germans were very wary of alienating another potential ally in Britain in the event that the British viewed an aggressive policy in Morocco as an attempt to establish a colonial/naval base on the Atlantic Ocean.

been significant enough to make Kaiser Wilhelm and new Chancellor Bulow in favor of the existing *status quo* in Morocco. The temptation to establish a greater hold in Morocco became so great for France that by 1903 the entire Cabinet (socialists included) were convinced that Morocco should be the centerpiece of French foreign policy and that French claims there were superior to those of any other country (Anderson 1930). There was a feeling that rebellion in Morocco could easily spread to, and endanger French holdings elsewhere, and also that due to colonial experience, the French were better equipped to deal with a native Muslim population than were the other colonizing powers.[8] The French shift toward Morocco was also partly out of necessity. Colonial opportunities in eastern Africa were largely eliminated by the French diplomatic defeat at the hands of the British at Fashoda in 1898. Within France, an important set of officials, led by Eugene Etienne, became convinced that competition with the British in Egypt was futile, and that the French should instead concentrate on solidifying their influence in other areas of Africa. Thus, although a French attempt to gain influence in Morocco could be perceived as a challenge to other powers with interests in that country, it was actually more of a defensive strategy borne out of failure in other areas of Africa, the emotional desire to replace the loss of Alsace-Lorraine, and the feeling that competition in other colonial realms left was less likely to result in victory over the British or the Germans. The question of the initial French move as either offensive or defensive in nature is important when it comes time to associate aggressive behavior with the French, British and German

[8] Other arguments were based on a wide range of factors, such as the given right to extend France's "natural frontier," Morocco's position next to Algeria and the already strong French economic presence in the region.

experience of critical periods during the Moroccan Crisis. As it will become clear, substantial evidence points to the Germans as the real challengers during the Crisis, with the British response being considerably more escalatory in nature than that of the French.

Etienne impressed French foreign minister Theophile Délcassé with the benefits of a Moroccan strategy, and over the next five years the French government became convinced that Morocco offered a promising first step in a revised colonial strategy (Andrew 1968). Délcassé was particularly fond of expansion in Morocco, as it was compatible with both his dream of a French Empire along the shores of the Mediterranean, and his belief that the British would be agreeable to a strong French presence in Morocco if it redirected French colonial efforts away from Eastern Africa and Asia.

Before approaching the British about Morocco, however, it was necessary to engage the other two powers with interest in Northern Africa – Italy and Spain. Italy was first on board, following negotiations in 1900 and 1901. Délcassé struck a deal that recognized Italy's right to extend its influence in Tripoli in exchange for Italian support of French policies in Morocco. Both countries also agreed that – should France establish a protectorate in Morocco, Italy would be entitled to do the same in Tripoli. Délcassé had considerably less success in his negotiations with the Spanish, despite the tendency of that country to associate itself diplomatically with France in order to balance against British power in the Western Mediterranean. Spanish interests in Morocco were much more entrenched than those of either Italy or Britain,

and as a result, there was great resistance to any plans that required Spain to reduce or eliminate its commercial and political presence in Morocco. Unlike the Italians, the Spanish were not interested in "exchanging" their rights in Morocco for concessions elsewhere. Geographic proximity and historical presence were the main reasons for Spanish reluctance regarding the Moroccan question. By 1902, there was no agreement that satisfied Délcassé. In fact, the new Spanish government (taking power in 1902) would only talk of an agreement that would allow for the eventual partitioning of Morocco between France and Spain, and it was not until 1904 that an agreement was reached.

The Entente Cordiale:

By 1904, the French – primarily foreign minister Délcassé - were determined to demonstrate the strength of the developing Anglo-French relationship. Délcassé eagerly searched for opportunities to signal French diplomatic strength, while underlining the growing isolation of Germany within the European system.[9] Prospects for improved relations with Britain were more promising as a result the visit of King Edward to Paris on May 1st, 1903. Upon arrival, Edward was greeted with cries of "*Vive Les Boers!*" and "*Vive Fashoda!*", but he quickly won over the French with his easygoing manner and heartfelt speeches. On May 2nd in particular, Edward's words struck a chord with a strong statement about his desire for an Anglo-French *rapprochement*:

[9] Andrew, 270-272

> "The friendship and admiration which we all feel for the French nation and their glorious traditions may, in the near future, develop into a sentiment of the warmest affection and attachment between the peoples of the two countries. The achievement of this aim is my constant desire" (Albertini 1952, 146-7).

If this visit represented the first step toward the *Entente Cordiale*, the decisive move was the trip of French President Loubet to London in July of 1903. Loubet was welcomed in London from the start, and Edward reinforced his speech of May 2nd with more talk of "the true friendship and affection that he and his country felt for France", and his desire that the "*rapprochement* between the two countries may be lasting" (Albertini, p. 147). Toward that end, French Ambassador in London Paul Cambon was working with Foreign Secretary Lord Lansdowne on an agreement on the most pressing issues of conflict between the two countries. Intense negotiations took place from July 2nd to the 17th, and were based on fishing rights near Newfoundland and territorial issues in Siam, Sokoto, Morocco and Egypt. Although deadlock continued into the fall and winter of 1903, April of the next year delivered a consensus on these issues. On April 8th, negotiations ended with the following agreements: Both sides reached a compromise on the division of influence in Siam, with the British assuming primacy in the west and the French in the East. The British gave in to French demands in Sokoto in return for fishing rights in Newfoundland. Most importantly, the French recognized Egypt as a British sphere of influence and in return were granted a free hand in Morocco, as long as the seacoast was kept neutral, commercial equality was maintained, and the rights of Spain were guaranteed (the

latter two issues representing confirmation of the Treat of Madrid).[10] Attached to the public articles of the accord, however, were a series of five private articles that went well beyond the scope of the published agreement. For one, in the secret articles, France and Britain agreed that, instead of guaranteeing the sovereignty of the Sultan, there should be an attempt to split Morocco between France and Spain in the event that the Sultan lost the ability to govern effectively. The British, for their part, were satisfied with a "sphere of influence" in the western portion of the country, as long as the Moroccan side of the Straits of Gibraltar was controlled by a minor power such as Spain.[11] Délcassé came to an understanding regarding the public portion of the accord with Morocco, England, Italy and Spain – but not Germany. In fact, there was no direct communication of the agreement from Paris to Berlin at all. By neglecting to include the Germans, Délcassé violated the article in the Treaty of Madrid that guaranteed – in the event of any policy directed at altering the status quo in Morocco – all members of the Treaty of Madrid would be consulted.

The German Response and Challenge:

Although threatened by the incipient alliance between Britain and France, the German leadership was not in principle opposed to French expansion in Morocco, if

[10] The relevant portion of the Anglo-French Accord read: "His Majesty's Government for their part recognize that it appertains to France, as the neighboring power on a long stretch of Morocco frontier, to preserve order in that country and to give assistance for the purpose of all administrative, economic, financial, and military reforms which it should require.

[11] The primary British concern was that the Straits remain open in order for the safe transit of the British Fleets between the Atlantic and Mediterranean Seas. As long as minor power controlled the southern edge of the Straits, there was little danger to British ships.

it distracted them from their fixation on regaining Alsace-Lorraine from the Germans. Thus, the French move was in and of itself not a real challenge to the interests of the German leadership. The fact that the French and British were acting in consort, however, was enough to threaten the Germans, who were increasingly concerned with the problems of diplomatic encirclement. With that in mind, Chancellor Bulow thought a firm challenge to the nascent Entente Cordiale was needed to humiliate France (and Délcassé) for its violation of the Treaty of Madrid. More important, the Germans hoped to use the event as a small wedge to drive between the French and their British allies. If this were to occur, the Germans would achieve a foreign policy coup by eliminating their major security threat by pursuing an agenda motivated by a legalistic plea to a widely recognized treaty. The timing of such a challenge was opportune because of the recent Russian defeat at the hands of the Japanese, which rendered them incapable of jumping into the fray on the side of the French if an escalation should occur. Because of the motivations and timing of their decision to act, it is more sensible to view the events constituting the Moroccan Crisis as driven by an aggressive German challenge to the diplomatic status of the Entente, and a stubborn refusal by the British – and less so the French – to back down in the face of that challenge.

As part of their general strategy, Kaiser Wilhelm and Chancellor Bulow had a very measured response to the Anglo-French agreements of April 8th. French statements regarding an aggressive stance in Morocco were not in themselves alarming to the Germans. As mentioned, just as the British were happy to see the

French shift their foreign policy shift its attention from Egypt to Morocco, Kaiser Wilhelm was more than willing to cede some ground in Morocco if it meant an end to the French fixation on continental aspirations and the *revanche* movement.[12] Of more concern to Wilhelm was the possibility that cooperation between the French and British in Morocco would lead to a larger *rapprochement* between the two countries. Still, in a speech given at the Reichstag four days after the Anglo-French agreement, Chancellor Bulow failed to betray any sense of concern with regards to Morocco or the nascent *Entente Cordiale*:

> "I can only say that we have no reason to suppose that this agreement is directed against any power whatsoever. It seems to be an attempt to eliminate the points of difference between France and Great Britain by means of an amicable understanding. From the point of view of German interests we have nothing to complain of, for we do not wish to have strained relations between Great Britain and France, if only because such a state of affairs would imperil the peace of the world, the maintenance of which we sincerely desire. As regards to Morocco, which forms the essential point of the agreement, we are economically interested in that country as in the rest of the Mediterranean. We have there mainly commercial interests and on that account it is to our interest that law and order should reign in Morocco. We have no reason to fear that our interests in Morocco can be overlooked or injured by any Power" (Fay 1930, 179).

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action taken by France for this purpose, provided that such action shall leave intact the rights which Great Britain enjoyed in Morocco, including the rights of coasting trade between the ports of Morocco.

[12] The popular *revanche* movement in France was based on the reacquisition of the Alsace-Lorraine territory lost to the Germans in the Franco-Prussian War of 1870, and a renouncement of the Treaty of Frankfurt (May 10th, 1871) which outlined the conditions for ending that war. Wilhelm was so interested in shifting French attention to Morocco that he purposely had the Spanish redirect a "secret" memorandum from Berlin to Paris in which Wilhelm encouraged the Spanish to allow France a greater role in Morocco.

The best way to challenge French claims in Morocco was to make an explicit statement regarding German intentions to protect their commercial equality in that country, along with the political sovereignty of the Sultan. By doing so, it would be clear that any attempts to monopolize trade in areas of Morocco, or usurp military control from the Sultan would not be tolerated by Germany. Bulow hoped that by confronting the French in Morocco, it would be possible to escalate tensions to the point that the British would be forced to acknowledge their refusal to go to war in order to protect what was in reality a French colony. If the British were to indicate their willingness to go to war in support of the French, Bulow would spin the situation in order to make the French believe that their new allies were simply out to start a conflict in which France would be permanently weakened by bearing the brunt of the German onslaught. In the end, we know that the German challenge in Morocco did nothing but strengthen the Anglo-French Entente, to the point that the two countries were planning military strategy in tandem shortly after the crisis (McCullough 1989, 70-77). From the German perspective, we see evidence of a risky foreign policy agenda motivated by a desire to gain international status at the potential cost of war with both Britain and France.

It was decided that an effective forum for delivering the challenge to France would be a visit to Tangier by Kaiser Wilhelm himself. On March 31st, 1905, after quite a bit of cajoling, the Kaiser landed in choppy waters and made this speech when greeted by the Sultan's uncle:[13]

[13] When the French representative in Tangier – Count de Cherisey – came to meet Wilhelm "in the name of Déclassé" and in such a way as to suggest French predominance in Morocco, Wilhelm

> "It is to the Sultan in his quality as an independent Sovereign that I today pay my visit. I trust that under his rule free Morocco will remain open to the peaceful competition of all nations, without monopolies or exclusions, on a footing of absolute equality. My visit to Tangier has the aim of making it known that I am resolved to do all in my power adequately to safeguard German interests in Morocco, since I consider the Sultan an absolutely free ruler. It is with him that I wish to reach an understanding as to the suitable means of safeguarding these interests. As to reforms which he has the intention of carrying out, it seems to me that it will be needful to proceed with great caution, taking account of the religious feelings of the population in order that there be no disturbance of the public order" (Albertini, 154).

Although innocent enough in itself, the speech none the less threw down the gauntlet to Délcassé and French policy in Morocco and ushered in a long period of crisis in international relations. While there is nothing objectionable about the superficial motivation of the Germans to uphold the "open door" in Morocco, the deeper objectives of the landing at Tangier was an outright challenge to the Anglo-French Entente. In this sense, it was very much the Germans who were playing offense by initiating the Crisis.[14] "The echoes which the Emperor's speeches aroused in Europe reverberated like the distant rumblings of cannon" (Anderson, 1930, 195). Back in Berlin, Bulow followed up on Wilhelm's Tangier visit by proposing an international conference at Algeciras to decide the Moroccan situation. Sultan Aziz, who was now being counseled by the German mission in Fez, was emboldened by such a show of

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insisted that he would "deal directly with the Sultan as a peer." He said to the Sultan's uncle that he " regarded the Sultan as the ruler of a free and independent Empire, subject to no foreign suzerainty" (Anderson, 194)

[14] Ultimately, of course, any conflict is driven by the interaction of two or more parties, so it is important to note that – just because Germany was the challenger in Morocco – Britain and France were also to blame for the escalation to near the point of war.

support from the Kaiser, also made clear his desire for all signatories of the Madrid Treaty to reconvene and discuss the legitimacy of the Anglo-French Accords. By calling for an international conference at which the French plans would be derailed, Bulow hoped to:

> "confront France with the possibility of war, cause Délcassé's fall, break the continuity of the aggressive French policy, knock the continental dagger out of the hands of Edward VII and the war group in England and, simultaneously, ensure peace, preserve German honor and improve German prestige"(Albertini, 154).

Despite Délcassé's personal desire to stand fast against any German challenges, there was now significant opposition within the French Government to any confrontation with the Germans. President Loubet, Prime Minister Rouvier, right-wing leader Paul Deschanel and left-wing leader Jean Jaures were all vocal in their opposition to Délcassé's policies in Morocco and particularly his decision to exclude Germany from the decision making process. The French public was still smarting from defeat at the hands of the Prussians some thirty years earlier, and given the relative capability trends in the ensuing years, they were not eager for another fight. Mistrust of the British also led to pessimism about their willingness to come to the aid of the French in case hostilities should break out. Even if they did, it was quite apparent to Parisians that "the British Navy did not have wheels" (Anderson, 186).

Délcassé needed to have support from all of France in order to resist German calls for an international conference on the Moroccan question. Despite the loss of pride that would accompany submission to German demands, Rouvier and the rest of France turned their back on Délcassé and agreed to an international conference as an

option that was preferable to war. Even if France desired a confrontation, and refused to meet at Algeciras, Bulow wrote in a letter to Wilhelm that: "She will put herself in the wrong toward all the signatory powers and thereby will give England, Spain and Italy a probably welcome excuse to withdraw [from the French camp]" (Anderson, 203). Thus, arrangements were made for all signatories of the Madrid Treaty to meet in Algeciras, along with additional powers such as the United States, Russia and Austria- Hungary. Délcassé, isolated within his own government and faced with opposition over his general policy of confrontation with Germany, resigned his position as Foreign Minister in a Cabinet meeting on June 6th, 1905.

The Algeciras Conference:

The preliminary program for the Algeciras Conference called for attention to five items: The sovereignty and independence of the Sultan, the integrity of Morocco, free trade and commercial equality, reforms in the financial and police sectors and recognition of the special position of France in Morocco as a result of its long border with French Algeria. In reality, the only issue among these five that demanded attention was that of reforms in the police and financial sectors. The French had never made any *public* (remember that the private articles of the Anglo-French Accord were something different) statements regarding intentions to limit commercial equality, sovereignty or the integrity of Morocco. For their part, the Germans were quite willing to recognize that the French did hold special interests in Morocco due to

geographic considerations. The sticking point for both sides however, was the French proposal to take charge of policing duties in Morocco, and also to be the chief source of finance to the Sultan, who was already heavily in debt to the French.

The Germans believed – and history would vindicate this belief- that once the control of force and finance was handed to the French, their objectives in other areas of interest (sovereignty, commercial equality and territorial integrity) would soon evolve into a much more aggressive form. Thus, the battle line was drawn between the Germans and the French over control of the police and financial sector. From the first meeting of the conference on January 16th 1906 until the last on March 31st, debate among attendees focused on this issue. France insisted that it (and perhaps Spain) should share policing duties in Morocco. Bulow rejected any such notion, citing the already mentioned argument that French control over the police force placed the principle of commercial equality on dangerous footing (Albertini, 169). Instead, the Germans hoped for a joint mandate for policing to be spread among an international conglomerate of France, Spain, Italy and Germany. Later on, this counter-proposal would fall apart due to the opposition of Italy, France and then Bulow himself. The initial opposition of Italy, however, was disquieting to the Germans as it not only indicated Germany's growing isolation on the policing matter, but a potential shift in the allegiance of one of Germany's two principal allies. France, with a growing coalition of states supporting its position, refused to compromise on their demand for control of the bank and police in Morocco. The Germans also refused to yield, and for the month of February it looked like the conference would

end without agreement, but with much increased hostility and the potential for escalation to war (Albertini, 170).

The fact of the matter was that there was no real interest for a multinational police force or financial team in Morocco. The Italians and Spanish simply were not interested in taking on this responsibility with France. Sensing this overall mood, momentum began to shift toward the original French proposal. When the Italians, Russians and even Austro-Hungarians began to voice their frustration over German intransigence, it appeared as though Bulow and his contingent began to consider at least some sort of compromise. The month of March brought a series of minor changes to the French proposal made by the Italians and Austro-Hungarians. A government change made the French more flexible in regards to these revision and the Germans, finally yielding to intense pressure from even their close allies, signed on April 7th, 1906 an agreement in Morocco that gave the French control over the police forces. Dutch and Swiss representatives would monitor the training and organization of these forces (Albertini, 175). France was given preferential position in regards to managing the financial affairs of the Sultan should he request help.

The tangible result of the Algeciras Conference was not clearly a defeat for the Germans. Indeed, on March 28th, 1906 German Ambassador in Paris Radolin declared that the confrontation over Morocco was a "long struggle [that] has ended with "neither victors nor vanquished" (British Diplomatic Documents (British Diplomatic Documents): Volume III, 345) and Italian Minister for Foreign Affairs Visconti-Venosta wrote to Berlin three days later: "I congratulate you sincerely; there

is a general feeling that this ending to the conference signifies a gain for German policy" (British Diplomatic Documents: III, 349). By forcing at least some concessions on behalf of the French, the Germans had succeeded in framing the Moroccan issue as one of international concern. Indeed, the further French encroachment (as Bulow predicted) that would take place in Morocco over the next five years would be subject to two more "international" conventions: One between the French and Germans in 1909 and another as a result of the Agadir Crisis of 1911, in which the growing French military, political and economic control over Morocco was protested by the arrival of the German cruiser *Panther* at the port of Agadir.[15] But that confrontation ended with an isolated Germany withdrawing its protest in return for relatively meaningless concessions in Central Africa by the French. By 1912, despite their ability to "participate" in the future of Morocco, the Germans were unable to prevent the complete subjugation of Morocco by the French. Another power transition between Sultans, increasing lawlessness outside of Fez and complete financial dependence of the Sherifian Kingdom on France resulted in the procession

[15] The Moroccan Agreement of February 9th, 1909 reinforced the principles of the Algeciras Conference, but was even more specific in regards to French and German interpretations of their respective roles in Morocco. France guaranteed to respect the integrity of Morocco and to reiterate its stance regarding the commercial equality of all powers in that country, Germany included. Conversely, Germany once again made public its acceptance of France's "special interests" in Morocco, including the right to maintain law and order. The Franco-German accord of 1909 formed the basis of relations between those two countries for the next three years.

"The Government of the French Republic, firmly attached to maintaining the integrity and independence of the Sherifian Empire, resolved to safeguard there economic equality, and consequently, not to hinder German commercial and industrial interests there, and the Imperial German Government, pursuing only economic interests in Morocco, recognizing on the other hand that the special political interests of France are there closely tied to the consolidation of internal peace and order, and resolving not to interfere in these interests,declare that they will not pursue nor encourage any measure of a nature to create in their favor or in favor of any power whatsoever economic privilege and that they will seek to associate their nationals in the affairs for which they may obtain the contract" (Barlow, 1940, 76).

of French troops to the capital of Fez in late 1911 and the declaration of Morocco as a French protectorate in 1912.

Germany entered the Algeciras Conference with the aim of using the meeting as a vehicle for increased prestige among the European powers. They had hopes that Britain and France would remain isolated and that these two countries would eventually be forced into the humiliating action of rescinding their agreement of April 8th, 1904. If this were to happen, Bulow and Wilhelm hoped, the crumbling of the Anglo-French Entente would not be far behind. The Germans were particularly counting on the support of their Triple Alliance partners Austria-Hungary and Italy. Bulow's optimism is betrayed in the following letter to Wilhelm:

> "we are already certain of the diplomatic support of America in favor of the open door...Austria will not quarrel with us over Morocco...Russia is busy with herself...Spain is of no importance, and also has a strong party in favor of the status quo. We shall certainly be able to hold Italy in order, if necessary by a gentle hint that while we settle with France, Austria will perhaps settle the irredentist question" (Anderson, 203).

Furthermore, the addition of Russia and the United States to the list of conference attendees made the potential encircling of the British-French pair all the more likely. In the end, it was the Germans who were isolated due to their intransigence at the conference; Russia, Italy, Spain and the United States all took an active role in support of the French and British. While the Austro-Hungarians stood tentatively by the Germans, the Italians displayed a great deal of indecisiveness which was the first step in many that brought them closer to France and further from the Triple Alliance.

The end of the Algeciras Conference and the Moroccan Crisis saw a German state that had gambled for a striking diplomatic victory and lost terribly:

> "The wind of armed German pressure, though it had swept Délcassé out of the Foreign Office in 1905, had in the long run only caused France to draw the cloak of the Entente with Britain more closely about her" (Grey 1925, 113).

Thus, Bulow and Wilhelm enjoyed minor success in the policy arena to which they were relatively indifferent – the economic and political situation in Morocco. The major threat to the Germans – the emerging Anglo-French Entente – was not weakened as a result of the Moroccan Crisis. On the contrary, it was strengthened considerably, and the groundwork for the Triple Entente (adding Russia) that would oppose the Germans in 1914 was firmly in place. Although a number of important events would play crucial roles in determining the timing and exact grounds for the First World War, one could very easily argue that the principal actors and grievances were the result of the German challenge to the Anglo-French Accords on Morocco, signed April 8th, 1904. The crucial events of 1904-1906 can very well be addressed through the power cycle framework. In this way, the origins of the First World War can be seen via a power cycle understanding of the Moroccan Crisis. The first step in such an understanding is an account of the nature of capability change that was occurring among the major powers at the time.

Background of Capability Shifts: Britain, France and Germany

At the turn of the century, rapid changes in relative capability resulted in a significant set of power-role gaps for the major powers in the system. Rectification of these power-role gaps was the primary motivation for foreign policy agendas during the Moroccan Crises. The system was in disequilibrium, and the traditional balance of power tactics of Bismarck and his contemporaries were no longer sufficient to cover up the glaring role deficits (most notably in the case of Germany and Russia) and surpluses (for Britain, France and particularly Austria-Hungary) on the continent. While they provided short term military security, alliances did not provide an adequate strategy for correcting the power-role gaps in the system. In the end, the alliance system only made the system more inelastic and vulnerable to the crises that preceded and led to the outbreak of war in 1914. These crises, from the Balkans to Morocco to Sarajevo, were a combined result of the long term power-role gaps in Europe, and a series of seven critical points between 1895 and 1914 that generated acute tension, anxiety and insecurity about the future.[16] Leaders like Wilhelm II and Nicholas II were unable to develop strategies for peacefully adapting and adjusting the system into equilibrium by reconciling existing role deficits and surpluses. When leaders in the seven states were then subjected to the trauma of near-simultaneous critical points, frustration and fear regarding power-role gaps were brought to the forefront. Anxiety and overconfidence were rampant in Berlin, Vienna and St.

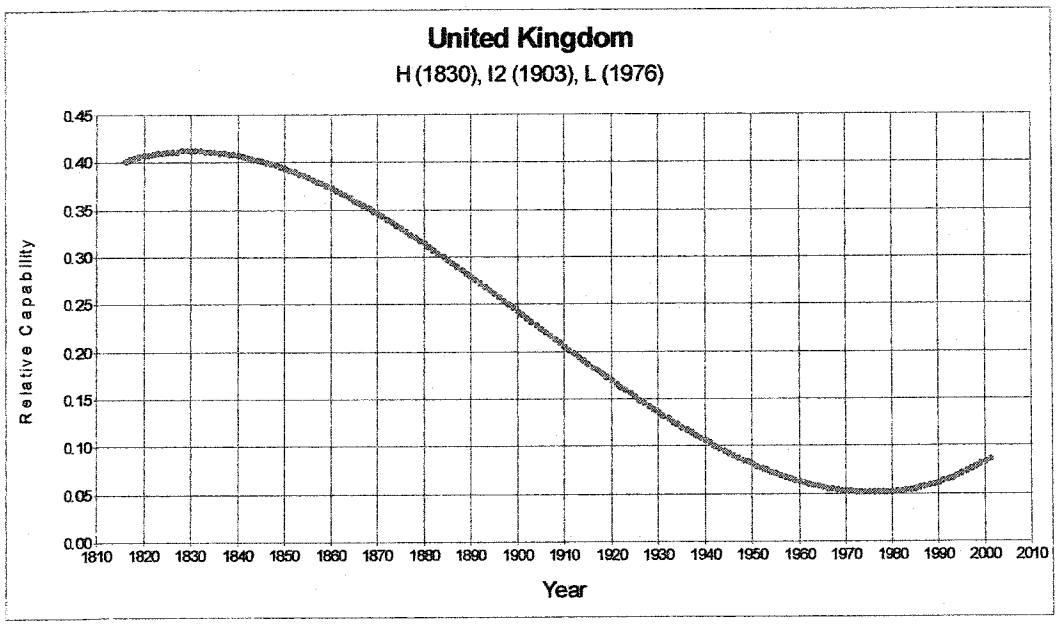
[16] Major powers experiencing critical points between 1895 and 1914 were: Britain, France, Germany, Russia, Austria-Hungary, Italy and the United States.

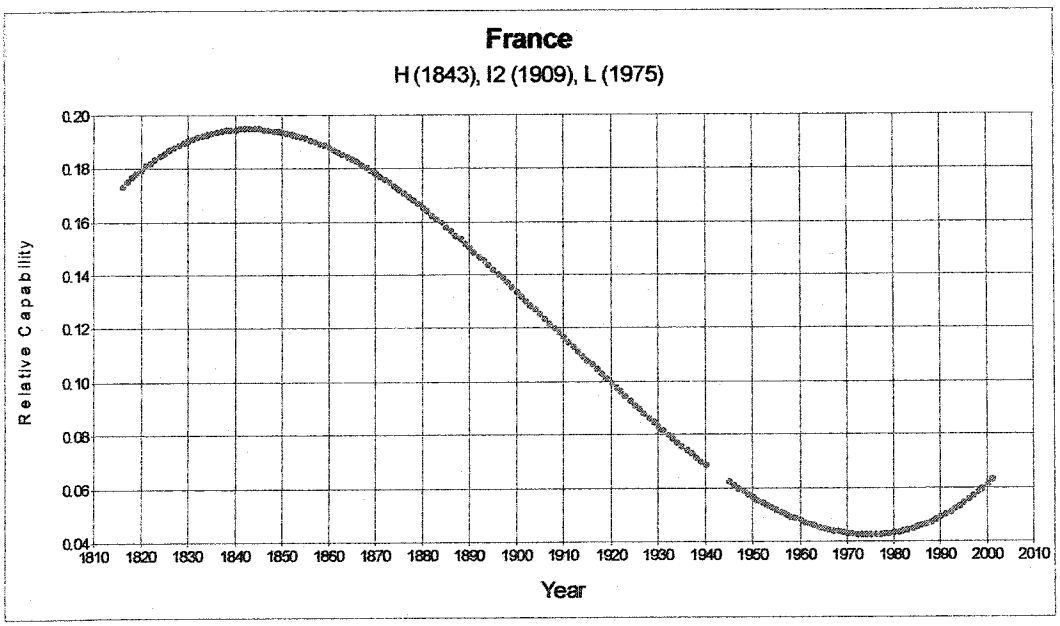
Petersburg in July and August of 1914. While alliance building and clever statecraft can temporarily suppress fears and grievances over power-role gaps, it is only through a system-wide effort at adaptation that true equilibrium – and lasting stability – can be achieved. To understand the specific kinds of adjustments and adaptations that may have prevented the First World War, it is necessary to consider the kinds of capability changes that were occurring in the system prior to the outbreak of war.

At the start of the twentieth century, there were significant changes taking place in the way that capability was distributed among the major powers in the international system. The two most powerful countries of the nineteenth century – Britain and France – had been in decline for the past seventy years. According to the graphical trends depicted in Figure 1, Britain had a relative power share of about 41% in 1820 and about 37% in 1860.[17] By 1900, the British share had been reduced to 24%. France was experiencing a similar contraction. At its peak, France enjoyed almost 20% of relative capability in the system, but by 1900 this share was down to 13%. In other words, Britain in 1900 was about 60% as powerful as it was at its peak, while France was approximately 65% as strong. The emergence of the United States and Japan, along with renewed growth in Russia was certainly important in bringing about the relative decline of the old British and French guard, but it was the dynamic expansion of German capability during the second half of the nineteenth century that was most responsible for the changing capability distribution.

[17] As explained in the previous chapter, these graphs are based on a logistic fit of the raw capability data. The raw data itself are based on each country's average score on the six indicators used by the Correlates of War Project.

Figure 1: Relative Capability Trends for Britain and France

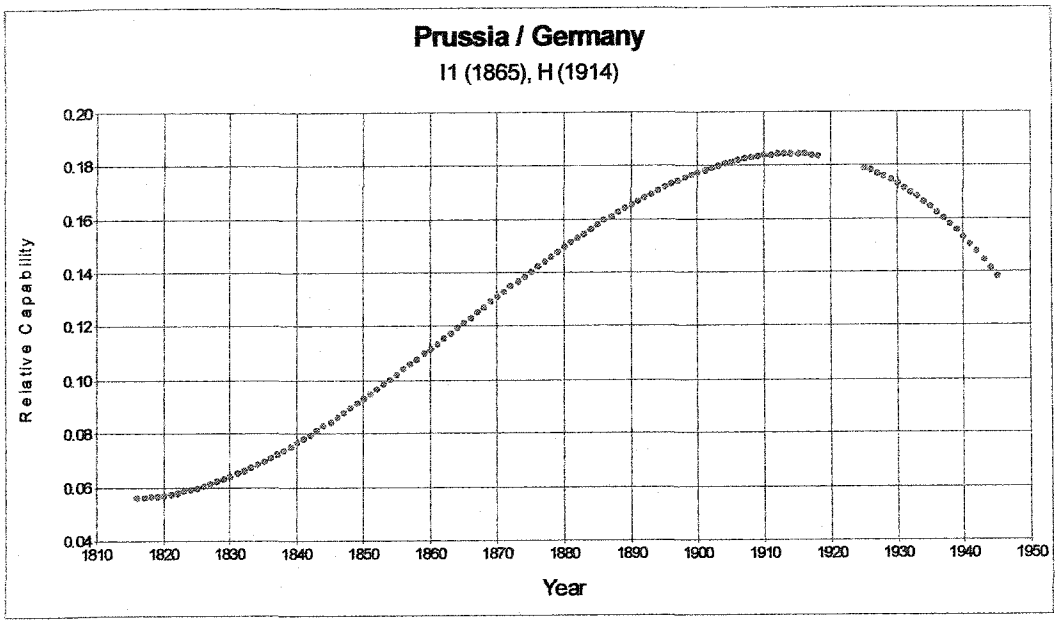




In 1820, the Prussian state was a pygmy among the giant European powers. At that time, Prussia's relative capability share hovered just under 6%. During the next 50 years, however, Prussian expansion and evolving German unification resulted in an expansion of capability share to 13% in 1870. That year, the Prussians defeated the French soundly and quickly, earning a decisive victory at the battle of Sedan. In the aftermath of the Franco-Prussian War, there existed a newly unified Germany which also absorbed the important industrial areas of Alsace-Lorraine. With a large population, and a strong and growing industrial base, Germany saw its relative capability share rise to over 18% by 1900. This era of tremendous growth is depicted in Figure 2. Thus, in 1820, the Germans were a state about 1/7 as powerful as Britain and 1/3 as powerful as France. By 1900, the Germans were just short of equal with Britain, and were about one and a half times as strong as France.[18]

[18] This graph for Germany is based on the updated method for calculating critical periods. However, the prior method is used throughout this chapter in order to determine the exact location and nature of the critical points in question. The prior method dates Germany's high turning point in 1904, not 1914.

Figure 2: Relative Capability Trend for Germany



With a declining percentage of power in the international system, both Britain and France were finding it increasingly difficult to protect the international status - or role - that they had established during their peak years. There is not presently an adequate definition of international "role", partly resulting from the changing way that status and prestige are measured over time. For example, while a permanent seat on the United Nations Security Council may be evidence of a strong role in the global arena today, the possession of a large colonial empire seems an appropriate yardstick of international import at the beginning of the 20th century.[19] Those with colonial possessions were willing to go to great lengths to protect them, and latecomers to the imperial "game" such as Germany and Japan saw their lack of overseas possessions as a frustrating sign of status as a second rate power.

Domestic economic sluggishness, the confrontation between Kitchener and Marchand at Fashoda in 1898 and the escalation of the Boer War in Transvaal were crucial in convincing the British that they were perhaps overextended, and that even their established holdings were far from secure (Bates 1984; Lewis 1987). While the sun *still* never set on the British Empire in 1900, there was an increasing emphasis on the home front and key territorial holdings such as Egypt, South Africa and India at the expense of peripheral regions such as East Asia. The challenge facing the British in 1900 was how to maintain a commanding presence around the globe at a time when their actual capability was insufficient for such a purpose. In other words, the

[19] That said, the operationalization of international role as the extent of colonial empire still faces significant difficulties. The geographic size of empire is somewhat unrelated to importance, as is the number of colonies that a power controls. Perhaps a worthy indicator, although not formally employed here, would be the amount of economic activity (trade, investment etc.) generated by territories under colonial control.

British were faced with the problems associated with protecting a *role surplus*.[20] Leaders were very much aware of the problems that lie ahead for Britain if it desired to protect its existing status. This was especially true on the seas, as made evident by the comments of head British Naval Intelligence Officer Arthur Marder in July of 1899:

> "The superiority which the British squadrons formerly enjoyed on the North American, West Indies and Pacific stations had passed away, and the were now 'completely outclassed' by the American fleet on the former station and were inferior to the United States, Argentina and Chile in the latter. On the southeast coast of America the British squadron was now inferior to Argentina as well as Brazil. The supremacy formerly enjoyed on the China station had passed to Japan, and the British squadron, considerably superior to the Franco-Russian combination in 1889 was 'hardly a match' for them ten years later" (Marder 1940, 351).

The French were also struggling in their attempt to maintain a vibrant empire in the face of relative decline. Still, as the third ranking power in Europe, it is quite possible to argue that the French possessed a colonial empire that signified a sizable role surplus at the turn of the century. They maintained control of Madagascar, a large portion of the Congo, and several holdings in Southeast Asia. In terms of both prestige and economic necessity, French leaders were attempting to compensate for the 1870 loss of Alsace-Lorraine by expanding their influence overseas. The problem for the French was a lack of "running room". While the Fashoda confrontation was simply a scare for the British, it signaled the end of colonial aspirations in the Eastern

[20] At this point in time, a clear definition of "role" in the international system eludes scholars. Role entails an intangible notion of international reputation, leadership and above all status and impact in the international arena.

half of Africa for France. Southeast Asia was also crowded, with Japan, the United States and again Britain serving as competitors for influence and control (Bartlett 1984). What was left for the French was the Northwestern corner of Africa, which was in close proximity to France itself, and in which their chief competitors were lesser powers Spain and Italy. France already had control of Algeria. By 1900, thee French had their eyes set on increasing their influence in the remaining prize in the region – Morocco.

While declining Britain and France arguably enjoyed a role surplus as of 1900, I posit that Germany was frustrated by a long standing role deficit. Since unification some 30 years earlier, the Germans had emerged as a first-rate, if not predominant power in the European state system. [21] But the Germans possessed almost no formal colonial empire outside of their holdings in the relatively barren stretches of Southwest Africa. If colonial empire is used as the sole measure of international role, the Germans were suffering from a severe deficit in that regard. As mentioned, however, role is a complex and multi-faceted notion. For the Germans (and specifically Bismarck), the last thirty years of the nineteenth century was a time of prestige and status as the "Great Arbiter" of Europe. As the centerpiece of the diplomatic landscape, Bismarck and Germany managed to satisfy their hunger for prestige and import by serving as the lynchpin of the European alliance system. As the chief power in the Triple Alliance with Austria-Hungary and Italy, Germany spent a great deal of energy keeping France and Russia apart, and Britain isolated. In the

[21] Depending on the indicators employed, Germany overtook Britain in terms of raw capability sometime between 1895 and 1905.

mid-1880s, Russia was actually brought into the alliance fold with the Germans, via the League of the Three Emperors (Austria-Hungary was the third member) and later the "Reinsurance Treaty" of 1887. The quick defeat of the French in 1870, and the resulting acquisition of Alsace-Lorraine via the Treaty of Frankfurt in 1871 also helped to boost German status among Germany's rival powers. Thus, the German role deficit was mitigated by great success as the leader of European diplomacy and also by a growing military reputation.

The fall of Bismarck in 1890, however, ushered in an era during which German power continued to grow, but the main sources of German prestige dwindled. The alliance with Russia was gone by 1891, replaced by a worst-case scenario bond between Russia and France in 1894. After Fashoda, the French and British appeared headed for a *rapprochement*, and Italy began to waver in regard to its commitment to the Triple Alliance. Kaiser Wilhelm lacked the international clout of Bismarck, and as a result the Germans lost their position as a Grand Arbiter of Europe. As their rivals sidestepped toward their own alliances, the Germans were left with only the Austro-Hungarians between themselves and isolation. Thus, by 1905, the Germans were best described as having an extreme role deficit. With the greatest share of power in Europe, the Germans had almost no colonial empire and had also lost status in the realm of diplomacy among major powers. Figure 3 offers a summary of the key capability shifts taking place in the years surrounding the Moroccan Crisis.

Figure 3: A Summary of Key Capability Shifts

Critical Point	Country	Type of Critical Point in 1904-06	Nature of Power-Role Gap
1902	Britain	I_2	Role Surplus
1904	Germany	H	Role Deficit
1913	France	None	Role Surplus

Critical Points Cloud the Picture

The distribution of relative capability share among major powers is always in flux; the fact that declining countries are reluctant to cede their existing status to those rising states that are clamoring for additional prestige results in almost constant gaps between power and role (Doran 1991, 2000, 2003). These gaps between actual power and desired role are, in themselves, not sufficient for officials to decide upon war as a viable policy option. Over time, states are usually willing and able to adjust their status to new levels of relative capability share. Although both Britain and France were stubbornly refusing to cede their level of influence in the system as of 1900, history has shown that, despite victory in the two major wars of the twentieth century, both countries have (by 2001) accepted reduced roles that are more commensurate with their power share in the system. Germany, on the other hand, had at least some incentive to accept its role deficit in the short run, instead waiting for its continually expanding relative power share to make it the indisputable "Master of Europe" (Taylor 1954, 1967). [22] We know in hindsight that peaceful rectification of the power-role gaps between these countries was not the historical outcome. Instead, Britain, France and Germany (along with almost every major power in the system) were locked in conflict by 1914. Indeed, the Moroccan Crisis of 1905 served as an initial sign of intractable conflict in Europe. From that point, subsequent crises in the

[22] According to the "Mastery of Europe Thesis" Germany's growth rates would push it toward unquestioned leadership of Europe by the 1920s or 1930s. Given Berlin's predominant position in the system by that time, it seemed quite reasonable to wait and address the German role deficit at some point in the future when their bargaining leverage was at its height.

Balkans (1908, 1909, 1911 and 1912) and again in Morocco (1911) were symptoms of a system in severe disequilibirum. The end result of this disequilibrium was the largest and deadliest war the world had ever seen. Why are countries sometimes able to rectify existing power-role gaps over the course of time, while at other times, leaders choose to correct role surplus and deficit by force (Vasquez 1996; Kupchan 2001)? According to power cycle theory, critical points are the crucial intervening variable. When existing role surplus or deficit is compounded by the sudden and drastic capability changes of a critical point, cognitive uncertainty and emotional trauma interact with frustration over role deficit or anxiety over role surplus in order to create a decision making environment that offers conflict escalation as an attractive or even necessary policy option.

By glancing at the summary of the Moroccan Crisis earlier in this chapter, one can gather clues as to the impact of critical points on the foreign policy agenda of the affected states. During the first decade of the twentieth century Britain, and Germany were experiencing their second inflection and high tuning points on their respective relative capability cycles.[23] We saw that, in Morocco, though the French made the initial move in an attempt to expand their influence, it was Wilhelm and Bulow of Germany that "threw down the gauntlet to France" at a time when their primary goal was to establish new alliance ties with the west, and it was Lansdowne and Edward who were willing to involve Britain into war in order to protect their rival's colonial

[23] According to the prior method of locating critical points, Britain passed its second inflection point in 1902, France in 1913 and Germany passed its high turning point in 1904. According to the "alternative method first developed in the preceding statistical analysis, those dates were 1903, 1909 and 1914, respectively. Although the exact timing of the critical points is thus up for debate, I use the established critical points out of convention.

interests. This counter-intuitive behavior is best explained by the uncertainty brought about by critical points. In the case of Germany, elimination of its longstanding role deficit was paramount among its policy objectives, even if this came at the apparent expense of its general security. By humiliating the French in Morocco, the Germans could both enhance their own prestige and lessen the status of the Anglo-French pair by destroying the Entente in the process. Moreover, there was great attention to multilateral capability shifts in Berlin, as German leaders realized that their window of opportunity in relation to relative power superiority was closing quickly as the Russian behemoth awakened.

The British, on the other hand, were given a boost of confidence as a result of their now decreasing rate of decline, and seemed less amenable to the idea of ceding status to the Germans. Thus, they threw their weight behind the French, even taking the lead in the confrontation at some points. This was motivated not only by the desire to preserve their influence via the new Entente, but also to prevent the Germans from gaining clout as the result of a diplomatic victory – or even worse – a real strategic victory such as attaining a viable coaling station and port on the Atlantic coast of Morocco. Thus, in just the historical summary above, it becomes clear that capability shifts in a multilateral context, the importance of power-role gaps and the contradictory emotions of critical points are all crucial dynamics that governed behavior during the Moroccan Crisis.

In the rest of this chapter I will use the power cycle framework to explain how critical points exacerbated systemic disequilibrium and led British, French and

German leaders to escalate their confrontations to the point of war. I will offer additional evidence showing that British, French and German behavior during the Moroccan Crisis and subsequent years was the direct result of: 1) The desire of Britain and France to protect their international status and prestige in the face of declining relative power, 2) Germany's frustration over a long-standing role deficit that prevented it from enjoying the fruits of its expanding capability share, and most important 3) the abrupt change and resulting uncertainty, anxiety and overconfidence that emerged among decision makers in the Britain and Germany as they passed through critical points on their relative power cycle.

Structure of the Rest of the Chapter

The rest of this chapter will link the primary assumptions of the power cycle framework to the behavior of British, French and German leaders during the Moroccan Crisis of 1905. The strategy of inquiry will be informed by the particular critical point (or lack thereof) being experienced by each country as well as the general role surplus or deficit that describes each country's power-role balance. Historical analyses, personal letters, memoirs, diplomatic documents and media documents will be used to provide the relevant evidence. This evidence, in turn, will be grouped into three areas of findings, broadly defined as multilateral power shifts, power-role gaps as foreign policy motivation and the emotional trauma engendered by critical points. These three kinds of data highlight the strengths and unique

contributions of power cycle theory on the systemic, state and individual levels of analysis. In relation to the rest of this dissertation, the third and final area (concerning emotional trauma) represents the most significant contribution when it comes to a greater understanding of the causal relationships developed in the statistical (and simulation) studies. Before digging into the psychological and emotional status of leaders such as Edward VII and Wilhelm II, however, I will briefly address the first two areas of analysis.

Area 1: The Importance of Multilateral Capability Shifts

A crucial, fundamental concept in the power cycle framework is that of *multilateral power shifts.* International politics is sometimes perceived as a bilateral competition between rivals or a race for hegemony among leading states (Organski 1958; Organski and Kugler 1980; Gilpin 1981; Modelski 1978; Modelski and Thompson 1996). The power cycle framework is set apart by its emphasis on a complex, multilateral set of power shifts among all major powers in the system, and the ability of power shifts in a seventh or eighth rank power to affect the foreign policy of even the predominant state in the system. The years of the Moroccan Crisis are perfect for illustrating the importance of a multilateral perspective in regards to changing capability shares in Europe. While Germany was indeed challenging Britain for supremacy in terms of relative capability share, there was no inevitability to an

Anglo-German conflagration. The codification of the alliance system around the Triple Entente and the Triple Alliance was the result of a very complex and chaotic set of proposals, existing treaty obligations and, most important, capability shifts. Specifically, I will show in this section that leaders in Germany, Britain and France did not perceive competition in the system as something that was constantly centered on constant Anglo-German struggle for supremacy.

"Wilhelm's dream was to head both the Dual and Triple Alliances, and, thus secure in Europe, to be in a position to snatch the mastery of the seas from perfidious Albion" (Albertini, 151). This hints of the sort of dyadic rivalry that power transition theorists cite as driving force behind the growing tension in Europe. And, while it is true that the Germans cherished much of the status and prestige enjoyed by the British as a result of their commercial and colonial empires, it seems more likely that Wilhelm was most interested in any sort of alliance system that allowed for the German role deficit to be addressed. It was not necessary for any German bloc to specifically be aimed at dethroning the British. This can be gathered from the following evidence, which suggests that German leaders perceived the European state system very much in multilateral terms. That is, there was not a singular focus on challenging the British. Instead, German action was spurred on by a constant fear that it would not be able to rectify its role deficit before being Russia began to demand more influence and prestige in the system. The sudden reversal from relative capability growth to capability decline (marked by the high turning point), challenged Germany's grand strategy. German leaders were quickly forced to deal with the

notion that – despite continued capability expansion in absolute terms, their position in Europe was now deteriorating due to exploding Russian growth and reduced rates of decline in, among other countries, Britain. Charles Doran quotes German foreign secretary in Rome Gottleib von Jagow:

> "In a few years... Russia will be ready. By then it will overwhelm us with the number of its troops; its Baltic fleet and strategic railways will have been constructed. Our own group (Germany plus Austria-Hungary) will in the meantime have become much weaker" (Doran 1991, 126).

From Germany's perspective, the traumatic realization of a critical point brought grievances over its role deficit to the forefront. These grievances were better addressed at the time, before relative decline made expansion of Germany's international position even more difficult.

The British perspective also held much more nuance than one would expect if the guiding light in British policy was the suppression of German expansion. Sir Edward Grey, who became foreign minister in the thick of the Moroccan Crisis, explained British alliance behavior in his memoirs:

> "France and Russia were allies. Protection against their joint fleets was our standard. There were two alternative policies or ways by which we might endeavor to guard against the causes of conflict – one was to make an alliance with another power for protection against France or Russia, the other was by friendly negotiation with these powers to smooth away and remove possible causes of conflict. The Anglo-Japanese Alliance was a step in the direction of the first policy; the Anglo-French Agreement was a step in the direction of the second" (Grey, 48-49).

Based on this account, both the Anglo-Japanese and Anglo-French Agreements seem to be disjointed, almost contradictory policies. With Britain's passage through a second inflection point, however, it is important to remember that the British, like the Germans, were faced with uncertainty in regards to policy planning. On one hand, the British Empire was certainly in decline. For the preceding seventy-five years, the share of relative capability enjoyed by the British in relation to the rest of the system was decreasing. Thus, efforts to maintain a presence in less important regions (such as East Asia) could be more efficiently accomplished via an alliance with a growing country with few conflicting interests such as Japan. This way, British interests could be protected against encroachment by a rapidly growing power such as Russia, without the commitment of troops and other resources that a now declining Britain could no longer provide.

The complexity of capability shifts in the international system, and the lack of an inevitable clash between a declining hegemon and a rising challenger is a clear point of emphasis for power cycle theory. Officials are wary of changes occurring among all major powers in the system, and their roster of friends and enemies is anything but fixed by something as simplistic as a dyadic power transition. German Ambassador in London Count Paul von Metternich related this idea by expressing the views of British Secretary of Colonies Joseph Chamberlain in the years leading up to the Moroccan Crisis:

> "He and his friends in the Cabinet saw the time of 'splendid isolation' was over. England must find allies; either in the Franco-Russian group or the Triple Alliance. Both in the Cabinet and in the ordinary public

> there were advocates of conciliation and a solid agreement with Russia, even at a high price. He personally preferred an agreement with Germany and the Triple Alliance and would make every effort to that end. Meanwhile he was in favor of a secret Anglo-German agreement over Morocco. Should it become plain that a lasting understanding with Germany was not possible, then only would he press for the agreement with Russia, even at the cost of great sacrifices (perhaps in China and the Persian Gulf)" (German Diplomatic Documents, 4979).

As late as March 18th, 1900 Foreign Minister Henry Lansdowne asked "whether it would be possible to arrive at a long term defensive agreement between England and Germany" (German Diplomatic Documents, 4994), and serious discussions ensued regarding the addition of Britain to the existing Triple Alliance between Germany, Austria-Hungary and Italy. Opposition in England by both Prime Minister Robert Salisbury and the general public prevented any formal agreement from being reached, although Bulow had actually formulated a draft copy to be signed by the pertinent leaders.[24]

Thus, the eventual hostility between Germany and Britain during the First World War was hardly an inevitable result of a clash between a declining hegemon and a dissatisfied, rising challenger. One must remember that it took the violation of Belgian neutrality *after the outbreak of hostility* to actually bring the British into the war on the side of the French. Instead, the evidence in this section has bolstered the power cycle assumption that changing capability in the international system is best

[24] Bulow insisted that any agreement between Germany and Britain be a public treaty, not a secret understanding between a few top ranking officials. In the end, this spelled doom for any alliance between the two countries, as public opinion in Britain would never allow any such document to be ratified by Parliament.

viewed as a multilateral phenomenon. Specifically, it is clear that foreign policy behavior is motivated not only by relative growth or decline within a dyad, but rather by the complex shifts that occur among all major powers. In turn, these capability shifts direct foreign policy in certain ways, but there is no simple formula that dictates alliance patterns or the target of a policy challenge. As we will see in the following chapter, evidence from several classroom simulations suggests that students also pay more attention to complex, systemic capability shifts than they do to bilateral changes in power ratios between states. Specific evidence from the simulations will thus bolster that found by examining evidence from the Moroccan Crisis. In the next section of this chapter, I will show that specific foreign policy decisions more often than not result from an opportunity to protect an existing role surplus or rectify a frustrating role deficit.

Area 2: Motivated by Role Deficit or Role Surplus

As mentioned in earlier discussion of the fundamental assumptions of power cycle theory, it is the desire for international prestige and influence that drives foreign policy behavior. While actual capability share is most important for preventing existential threats to the state itself, confrontations such as the Moroccan Crisis are typically the result of an attempt to either maintain existing *role* in the system, or to acquire additional *role* via diplomatic triumph or military victory. The specific motivation is unique to each country involved, and their disposition as a power

frustrated by role deficit, or one seeking to protect a role surplus. Additionally, the motivations to rectify or maintain these power-role gaps are greatly exacerbated by the presence of a critical point on the relevant country's power cycle. In the case of the Moroccan Crisis, British and French behavior was primarily driven by a need to protect their existing role surplus, while German policy was geared toward the elimination of a long standing role deficit. We will also see that British and German motivation was exaggerated due to their passage through the second inflection and high turning points, respectively.

The initial German reaction to the Anglo-French accords of April 8th, 1904 was quite measured. Bulow, in a speech to the Reichstag, simply lauded the "elimination of differences" between Britain and France while making it clear that Germany would defend its existing interests in Morocco. The level-headed speech, however, masked a significant amount of frustration within the Berlin government. The Anglo-French rapprochement bolstered the international profile and prestige of both those countries, and as a result, was a relative loss in status for Germany. Wilhelm telegraphed Bulow on April 19th, fearing that Britain, now sure of French support "would more and more give second place to all considerations relating to Germany" (German Diplomatic Documents, 6378). Bulow, replied that:

> "...the two powers [France and Britain], by this agreement, and by their rapprochement, gain in international importance and freedom of action. The force of the Anglo-French Entente on Italy will be much stronger than was that of each of the two Western Powers separately" (German Diplomatic Documents, 6379).

Friedrich Holstein, secretary in the Berlin foreign office, worried that France would now be given a free hand in Morocco by Britain, and that it would soon achieve an economic monopoly there, just like it had in Algeria. Holstein argued that Germany's commercial rights and interests would be threatened, and that "German prestige would suffer, if she allowed Morocco to be disposed of as if Germany did not exist." He continued by remarking on the larger consequences of the Moroccan question in terms of the further exacerbation of the already severe German role deficit: "If we let our toes be trodden upon in Morocco without saying a word, we encourage others to do the same elsewhere" (German Diplomatic Documents: XX, 207-209).

For his part, Wilhelm clearly longed for Germany (and himself) to return to the glory days of Bismarck, when the Eastern and Western Powers in Europe were balanced by careful manipulation *that almost always* emanated from Berlin. Such a role as "Grand Arbiter" of Europe had eroded over the years, with the signing of the Franco-Russian, Anglo-Japanese and Anglo-French agreements that took place well beyond the purview of the German government. Thus, the main venue for expression and expansion of German status and prestige in the international system was becoming more and more inaccessible for Wilhelm and Bulow. In a letter from French Ambassador in London Paul Cambon to King Edward VII, Cambon was aware of this:

> "He had sought to get himself regarded as the supreme arbiter of Europe, the defender and guarantor of the general peace; in a word, he expected to play a leading

> role everywhere. And he sees with bitterness Your Majesty taking this role from him" (Albertini, 151).

Yes, Edward responded: "He loves to get himself talked about. The agreements that we have negotiated apart from him, without his permission and without his help, have stupefied him; they have produced in him a sense of isolation, hence his agitation and ill-humor" (Albertini, 151).

Status in the colonial arena, for reasons explained earlier, may have been an acceptable and alternative strategy for rectifying Germany's long standing role deficit. Délcassé's gaffe in 1904 - not notifying the Germans of the public articles found in the 1904 Anglo-French Accords – opened the door for a German challenge to France. The fact that Germany was just beginning to experience the anxiety that accompanied its high turning point in 1904 made the decision to act more urgent, as time was now the enemy of Wilhelm and Bulow in terms of bargaining leverage. Without the experience of the critical point, these leaders would have projected continued growth for Germany in the system, and especially vis-à-vis Britain and France. With less pessimism regarding the potential to resist French expansion in Morocco should the need arise in the future, it might have been possible to let the Anglo-French Entente decay on its own. Without being spurred on by the grand face-off with Germany in Morocco, the Entente might have collapsed underneath the contradictory commitments made by both Britain (to Japan) and France (to Russia) to warring alliance partners in the Far East.

Instead, the German challenge to France in Morocco was met not only with resistance from the French, but also with strong opposition from a British government

that was dedicated to maintaining British predominance in the international system, even if it meant risking war. Some years after the Moroccan Crisis (during the 1911 Agadir Crisis), with events once again pitting Britain and France against Germany in Morocco, then Chancellor of the Exchequer Lloyd George gave these famous words in a speech to Parliament. They provide clear evidence that British policy during the early 20th century (and during their passage through their second inflection point) was guided by the extreme motivation to maintain the international *role* London had obtained while at the peak of its power:

> "I believe it is essential in the highest interests, not only of this country, but of the world, that Britain should at all hazards maintain her place and prestige among the Great Powers of the world... If a situation were to be forced upon us in which peace could only be preserved by the surrender of the great and beneficent position Britain has won by centuries of heroism and achievement, by allowing Britain to be treated where her interests were vitally affected as if she were of no account in the Cabinet of nations, then I say emphatically that peace at that price would be a humiliation intolerable for a great country like ours to endure" (British Diplomatic Documents, 412).

The determination to maintain what amounted to a role surplus at all costs is symptomatic of the "delusions of grandeur" syndrome that is often associated with passage through the second inflection point (Doran, 1991). Whereas precipitous decline fosters a general feeling of acceptance in regards to the inevitability of reduced status in relation to other, faster growing powers, the second inflection point can mislead officials into a more aggressive policy stance that is aimed at preserving a role surplus in the short term, because these officials are inclined to believe that a

rapid return to relative power expansion will soon legitimize that level of status and prestige. This kind of logic, if it permeates the thinking of key decision makers, is sufficient to generate a strong reaction to minor challenges from rising powers (as was the case with Britain in Morocco).

Germany, experiencing the uncertainty and trauma of its high turning point, was similarly prone to elaborate and perhaps over-dramatic visions regarding its rightful place in the international system, and the "fate" awaiting those that might try to deny it this place. German conservative Ernst von Heydebrand made this clear in a memorable Reichstag speech:

> "Now we know where our enemy stands. Like a flash of lightning in the night, these events have shown the German people where the enemy is. The German people now know when it seeks its place in the sun, when it seeks the place allotted to it by destiny, where the State is which thinks it can decide this matter...When the hour of decision comes we are prepared for sacrifices, both of blood and treasure" (Albertini, 334).

France, though a declining power similar to Britain, did not begin to experience its second inflection point until 1909, well after the outbreak of the Moroccan Crisis and Wilhelm's visit to Tangier. Without the confusion and abrupt changes in their capability trends, French leaders were much less grandiose in their reaction to German behavior than were their British counterparts. In many ways, this is surprising because it was indeed a French policy agenda that was being challenged, and the challenger was a country with which the French had been involved in major conflict with only thirty years earlier. Still:

> "The French Government received the news of the Tangier visit quite calmly. Maurice Rouvier, the premier, thought it had little political significance and was not menacing; Paul Cambon and (French Ambassador in Berlin) Bihourd both thought it was not directed at France. Even the French colony in Morocco was not hostile" (McCullough, 85).

In London, reactions were much more severe. Acutely aware of German attempts to usurp status and prestige, the British Foreign Office viewed the Tangier visit not as a call for equal commercial standing in a colonial territory, but as an immediate and rash attempt to destroy the Anglo-French Entente before it could even get off the ground. As King Edward expressed to Lansdowne on April 15th, 1905:

> "The Tangier Incident was the most mischievous and uncalled for event which the German Emperor has ever been engaged in since he came to the throne. It was also a political theatrical fiasco, and if he thinks he has done himself good in the eyes of the world he is very much mistaken. He is no more or less than a political '*enfant terrible*' and one can have no faith in any of his assurances. His own pleasure seems to wish to set every country by the ears" (Anderson, 209).

This quotation from Edward gives insight to the importance of the German challenge as perceived by London. While both France and Britain were concerned with maintaining the current status in the global arena, British passage through a critical point made the German challenge to London's role surplus all the more threatening. This historical evidence is supported by the existence of similar behavior patterns found during the classroom simulation that is the topic of the next chapter. Because success in the International Politics Simulation was defined by the achievement of a certain set of foreign policy objectives, students were very conscious of how these

objectives related to their status and prestige in the fictitious world system of "Aetolia". Moreover, evidence from written student reports and emails suggests that role surplus and role deficit were salient issues during the game. As I will show in the next chapter, students were frequently motivated by frustration over their inability to realize the role in the game that they believed their relative capability share dictated. This was especially true for countries on the rise. Conversely, there is some evidence to suggest that once a country has established a certain level of influence in the game they are unwilling to relinquish it, even as their power share declines and they possess a role surplus. Frustration over role deficit and inflexibility regarding role surplus is more common for countries experiencing critical points.

Area 3: Emotional Trauma at Critical Points

Critical points create an atmosphere of uncertainty for the governmental leaders experiencing them. This is because, at one moment, past projections and beliefs are obviously the groundwork for foreign policy behavior, but the drastic changes signaled by a critical point affect the disposition and planning of key officials. At the high turning point, for example, a country is reaching its apex of relative power in the system. Confidence vis-à-vis rivals should never be higher than it is at that moment. Any existing role deficit is ripe for rectification, be it colonial expansion, organizational leadership or simply international recognition. At the same time, however, leaders are faced with an impending contraction in their relative capability

share. There is a distinct feeling of "The time is now!" From the critical point onward, the ability of that country to leverage its relative power into additional status and prestige in the system will be decreasing. Thus, at the high turning point, we should see simultaneous evidence of overconfidence and extreme anxiety; of belligerence and concern. At other critical points, such as the second inflection point, leaders should exhibit contradictory emotions such as optimism (warranted by a reduced rate of decline) and fear (of the continuing contraction of their country's relative power share). Extreme emotional swings in a short period of time may be a symptom of individual leaders' inability to generate a consistent perspective on the current situation facing their country. These emotional swings should be compounded by a higher general level of irritability, suspicion, and a great sense of perceived threat during all critical periods.

The objective of this section is to find evidence of these symptoms in the statements and behavior of individual leaders in the years surrounding the Moroccan Crisis. Because it was Germany and Britain that were experiencing critical periods at this point in time (the high turning and second inflection points, respectively), the focus of this analysis will be on the interaction between leaders from the two countries. Specifically, most attention is given to the relationship between King Edward VII of Britain and his nephew, Kaiser Wilhelm II of Germany. Via a chronological narrative, I will show that both leaders exhibited signs of emotional trauma that were associated with the respective critical periods being experienced. Passage through the second inflection point gave renewed hope to Edward in regards

to the preservation of British prestige, and inclined him to be excessively stubborn and inflexible when it came to dealing with Wilhelm, who was the primary threat to that prestige. As Wilhelm was influenced by the dynamics of the high turning point, his demeanor was characterized most accurately by a simultaneous over-confidence and panic that resulted from a realization that, while Germany was at its peak of relative power in the system, its leverage in the global arena was already deteriorating.[25] Both Edward and Wilhelm also displayed rapid emotional swings, excessive suspicion of each other's motives as well as an elevated sense of threat when dealing with unexpected events. Finally, as suggested by the inferences drawn from prospect theory in Chapter II, Wilhelm's firm position in the domain of loss (remember that the high turning point represents a reduction in both the rate and direction of relative capability change) means that his behavior should be slightly more aggressive, and his emotional state slightly more unstable than King Edward, who was experiencing the second inflection point (which does not generate as high a level of risk propensity).

Relations between Wilhelm and King Edward VII were actually quite amicable up until the end of 1901, at which point Edward actually wrote about his wishes for some sort of "entente cordiale" with Germany (Royal Archives, Edward VII to

[25] Faced with passage through a high turning point from 1901 to 1916, Kaiser Wilhelm and Chancellor Bulow in particular exhibited the classic, conflicting emotions that one would expect at such a critical point. Both leaders had formulated a coherent policy, *Weltpolitik*, which addressed the lack of German colonial empire and the maintenance of Germany as the lynchpin of the European alliance system. At the height of their relative power, German leaders were certainly confident in their ability to exercise influence on the diplomatic scene; their victory over France in 1870 was long-standing evidence that they had the military capability to support their desire for more *role* in the system. Indeed, there was a great deal of confidence on behalf of Wilhelm and Bulow that Germany would soon attain its rightful place as the top power in Europe, both militarily and diplomatically.

Lascelles, 12/25/1901). Likewise, the Kaiser made a speech shortly thereafter which simultaneously signaled his strong feelings toward Britain and his belief in the supremacy of what he termed the "Teutonic race":

> "I gladly reciprocate all you say about the relations of our two countries and our personal ones; they are of the same blood, and they have the same creed and they belong to the great Tutonic [sic] Race, which Heaven has entrusted with the culture of the world" (Royal Archives, Wilhelm II to Edward VII, 12/30/1901).

In January of 1902, precisely at the moment of the second inflection point for Britain, Edward suddenly, and without stated reason, changed his general attitude regarding Wilhelm and Germany. While he intended to send his son to Berlin in order to celebrate the Kaiser's birthday, the King inexplicably cancelled the visit, despite contrary advice from Lansdowne and others. It was a small slight that nonetheless was the first real step in a succession of irrational and provocative actions by Edward and Wilhelm. While a number of causal factors were undoubtedly at work, the move could very well have been a hasty response by Edward to the escalating naval build-up by Germany that served as the primary threat to British predominance on the seas. This build-up, which targeted the heart of British status – its navy – was accentuated by the various Naval Laws in Germany from 1900 to 1905. These provocative moves were an attempt to quickly increase the number of German dreadnoughts and secondary capital ships in order to challenge British superiority in the North Sea within ten years. The urgency of this armament program, and the desire to challenge Britain sooner rather than later, was a predictable strategy when one takes into

account the alarming developments signaled by the German arrival at its high turning point in relative capability share. In short, the window of opportunity for Wilhelm and Germany was closing quickly, and this resulted both in extreme anxiety and a brash over-confidence on behalf of German leaders at the time. The emotional symptoms of this situation began to emerge in the relationship between Wilhelm and his British rival King Edward.

After Edward's famous visit to Paris in 1903, (which would eventually lead to the Entente Cordiale of April 1904) he declined an invitation to visit Berlin and traveled south to Rome instead. In May of 1903, Wilhelm told one of his key military attaches that he was *extremely hurt and disappointed* that the King had avoided the trip (McLean 2001, 106). By the autumn of 1903, Wilhelm was *increasingly suspicious* of British motives in seeking closer relations to France. Although there was not anything close to a formal agreement between Délcassé and Lansdowne at this point, Wilhelm *feared* that if the trends continued as they were "we [the Germans] will find ourselves surprised one day by a Global Coalition against us." To avoid this nightmare scenario, "Wilhelm had, by the end of that year, made it his first and fundamental idea to destroy England's position in the world to the advantage of Germany" (McLean, 107). Shortly before that statement, Wilhelm was quoted as describing Britain as a "rotten country" to a group of Americans he was entertaining (McLean, 103).

Wilhelm's *growing fear and anxiety* over British motives and Germany's deteriorating prospects for European leadership are illustrated well by a *public outburst* during a speech in Hanover on December 19th, 1903, in which he

> "referred to the Battle of Waterloo, and claimed that the British would have lost the battle had it not been for the intervention of Marshal Blucher and the Prussian and Hanoverian forces" (McLean, 108).

The statement made by Wilhelm also suggests that he was simultaneously experiencing contradictory emotions of *anxiety and overconfidence*.[26] For his part, Edward reacted angrily to the words of the Kaiser, calling them "foolish, injudicious and historically untrue." He wondered out loud what would make the Kaiser say "such unnecessarily foolish things" (Lascelles, 12/23/1903).

Shortly after the April 8th Accord between Britain and France, Wilhelm was dedicating a bridge over the Rhine River near Mainz, and he expressed his *over-confidence* in regards to a potential conflict with France by stating: "If this bridge were to be used for more important traffic, it would perfectly fulfill its purpose" (Albertini, 150). Back in Berlin, Chancellor Bulow made it clear that he too felt extremely confident in regards to the German position against Britain in the years prior to the Moroccan Crisis.

> "Your Majesty is quite right in feeling that it is the English who must make the advances to us. They have just had quite a drubbing in Africa, America proves to

[26] This, as power cycle theory argues, is a common symptom for leaders passing through the first inflection point. Although German power was still on the rise (leading to a certain brashness and cockiness), Wilhelm was suddenly fearful of the impending limits that were now to constrain German expansion of power and prestige in the system.

> be uncertain, Japan unreliable, France full of hatred, Russia perfidious, public opinion in all countries hostile. The Diamond Jubilee of 1897 marked the supreme moment of English self-assurance when the English peacock made its proudest fantail display and complacently flaunted its splendid isolation; now it gradually dawns on the English that they can no longer maintain their world empire solely by their own efforts against so many adversaries" (German Diplomatic Documents, 4983).

Later that summer in July, however, French Ambassador in London Paul Cambon offered a different perspective on Wilhelm's mental state: "The true cause of the nervousness which seems to have afflicted Wilhelm for several months is that he never would believe in the possibility of an Anglo-French accord" (Albertini, 151).

As the incipient signs of decline began to appear, however (with passage through the high turning point), Wilhelm's extreme confidence was suddenly speckled with sizable bits of anxiety about a shrinking window of opportunity for German greatness. While there was no sign that German growth vis-à-vis Britain and France was slowing, the emergence of the United States, Japan, and most importantly Russia was a cause of great concern. It appeared as though, just as Germany was poised to emerge in its greatest hour of strength and glory on the international scene, it was already in danger of losing its opportunity to do so. Therefore, there was a great deal of urgency in Berlin to parlay confidence into action against the British and French while suppressing extreme anxiety and pessimism over the growing threat from the east. The emerging confrontation in Morocco was a microcosm of the German predicament, as the decision to resist French expansion in the region was based on a feeling that France was in no position to usurp any additional concessions from a

more powerful country like Germany. At the same time, the Moroccan Crisis was the harbinger of the Anglo-French Entente. Coupled with the Franco-Russian Alliance and Wilhelm's inability to secure a bilateral treaty with Russia, the German challenge in Morocco was accompanied by an intermittent panic about the potential for German isolation and impending decline in relation to an Anglo-French-Russian alliance.

> "The German press approves Wilhelm's raising his voice in this way, and, ceasing to echo the Chancellor's pacific modulations, it too assumes a tone bordering on menace. It contrasts the Kaiser's trumpet call with the somewhat smug optimism of Count Bulow" (Albertini, 150).

Because of Russia's growing strategic importance to both Germany and Britain, Wilhelm and Edward were also *increasingly suspicious* of each other in regards to each country's bilateral relations with Tsar Nicholas II. Despite the newly-minted Anglo-Japanese alliance of 1902 (which was presumably directed by Britain against Russia), there was by 1903 a noticeable détente in Anglo-Russian relations. Edward made personal appeals to Nicholas that reflected his desire to unite the two countries against the "yellow peril" (McLean, 109). Wilhelm, noting that now the British were seeking closer ties with both the French and Russians but not the Germans, was characterized as quite "*suspicious of British designs*" by Chancellor Bulow. In response, Bulow pleaded with Wilhelm to work at improving German relations with Russia, which he saw as a logical partner for Germany. A series of meetings were arranged over the course of the next year, so that by September of 1904, "Lord Esher,

a close friend of the King's wrote that there was 'a secret and very intimate understanding' between Germany and Russia" (McLean, 111).

The Dogger Bank Incident of October 22nd, 1904 exacerbated the differences between Britain and Russia, while also leading a greater *suspicion* on behalf of Edward that there was a devious partnership emerging in Berlin and St. Petersburg. Despite the fact that it was Russian vessels that fired and sank British fishing boats (mistaking them for Japanese torpedo boats) in the North Sea, Edward insisted that the Germans were really behind the incident. Edward's personal sentiments led to a public attack on Germany by the British press, which in turn led the Germans to *panic for fear* of an impending British attack (Steinberg 1966). Metternich was furious at Edward's stubborn insistence on blaming Germany for the attacks, and in a letter to Edward's private secretary, he denounced the accusation as "a mere fabrication without a shadow of truth," accusing Edward in return of having a goal based on "making the English people once more believe in *Germany's dark designs against them*" which would result in "*an atmosphere of dislike and exasperation* which might lead to the most serious consequences" (Royal Archives, Metternich to Knollys, 11/5/1904).

Edward's fear of a Russo-German alliance was not entirely unwarranted. Wilhelm and Tsar Nicholas were both sailing in the northern waters off Bjorko, Finland in July of 1905. The Kaiser was in high spirits after the fall of Délcassé in France, and it looked like an international conference on Morocco was to take place. Bolstered by this diplomatic coup for Germany, Wilhelm was seeking even more prestige via one

more attempt at an alliance with Russia. Wilhelm proposed that the two leaders meet on July 25th on the Tsar's ship *Polar Star.* After conferring with Nicholas in regards to the *alleged treachery* of Edward VII, Wilhelm was also pleased to hear of Nicholas's support for the Morocco conference, as it portended well for a thawing of relations between Germany and France.[27] Wilhelm thought the time ripe to propose a mutual defense treaty in Europe between Germany and Russia. When the Tsar remarked that the treaty was "quite excellent", Wilhelm noted that his "heart beats so loudly that I can hear it." Wilhelm went on to tell Bulow that "tears of joy stood in my eyes – to be sure drops of water were trickling down my forehead and back" and that the morning of July 24th 1905 had "become a turning point in the history of Europe" (Albertini, 174).

So, Wilhelm was in extremely high spirits after his meeting with Nicholas in the waters off Bjorko – not only was Germany on the brink of a diplomatic coup with the upcoming conference on Morocco, it was also now poised to regain its position at the center of the European alliance system via its new agreement with Russia. When Nicholas returned to St. Petersburg, however, Foreign Minister Vladimir Lamsdorf made it clear that an alliance with Germany was clearly in violation of Russia's current agreement with the French. In Berlin, Chancellor Bulow was also exasperated by Wilhelm's impulsive actions while supposedly on vacation. Bulow was keenly aware of the incompatibility of the Bjorko agreement with the Franco-Russian alliance and was extremely concerned with the potential repercussions that the news

[27] Wilhelm reported to Bulow that Tsar Nicholas referred to Edward as the "greatest mischief-maker and the most dangerous and deceptive intriguer in the world" (Albertini, 173)

of this agreement would have on efforts to make headway in Morocco. Bulow, in fact, was so *distraught* at the rash actions of Wilhelm that he handed in his resignation just days later. Wilhelm, previously on an emotional high, was suddenly thrust into a *fit of desperation* when he realized that Russia would not be signing the agreement and that his trusted advisor Bulow was prepared to leave his side. Faced with the reality that Germany's precarious position dictated, Wilhelm was about to exhibit the kind of abrupt and drastic emotional shift that is made possible by the uncertainty engendered by critical points. At the critical, high turning point on its relative capability cycle, Germany was simultaneously in a position to realize the international status and prestige that leadership of international conferences and new alliances would afford, but also acutely aware of the potential for isolation and decline portended by its initial taste of relative decline. This contradiction wore on Wilhelm in particular, and we can see his *desperation* in a letter to Bulow after the Chancellor submitted his resignation, and less than one week after his glorious meeting with the Tsar:

> "You are worth 100,000 times more to me and the Fatherland than all the treaties in the world... No my friend, stay in office with me, and we will work further in common together as *majorem Germaniae gloriam*... After the receipt of this letter, telegraph me, 'All right', so that I shall know you will stay. Because the morning after the arrival of your letter of resignation would no longer find your Emperor alive. Think of my poor wife and children!" (Albertini, 176)

As we know, Bulow chose to return to office, though it is not clear if the highly emotional plea on behalf of Wilhelm was the driving force in his decision. It was clear, however, that the Kaiser's emotional state was subject to drastic and relatively sudden shifts between exuberance and despair. While it is impossible to attribute these changes solely to the contradictory emotions that can be engendered by critical points, there is an intuitive link between Germany's location at the high turning point on its relative capability cycle and simultaneous feelings of confidence and anxiety.

It should be clear that, by the time of Wilhelm's landing at Tangier in March of 1905, relations between Britain and Germany had deteriorated tremendously. Events such as the Dogger Bank incident no doubt contributed to this deterioration. The passage of both Britain and Germany through critical points on their relative capability cycle, however, was the driving force behind the growing suspicion, anxiety and over-confidence exhibited by leaders in both countries. While the confrontation over Morocco was a traditional expression of these issues, more telling lessons can be drawn from the over-reaction and fear that were generated by seemingly meaningless episodes. It is in these instances that the psychological and emotional impact of critical points can be most easily noticed.

On December 15th, 1904 – even before the Moroccan Crisis was careening out of control, Kaiser Wilhelm was convinced that Britain was prepared for war in the near future. Wilhelm based his belief on two minor etiquette violations by Edward, which he saw as sufficient for signaling Britain's intent to attack. These violations were related to the birthdays of the Queen and Kaiserin. Wilhelm was first greatly angered

by the Royal Family's lack of expediency in acknowledging a birthday card sent by the Kaiser and his wife to congratulate Queen Alexandra. The Royal Family then failed to send a birthday wish to the Kaiserin on her birthday. Metternich and Lascalles both tried to convince the Kaiser that his fears of an attack were very much unwarranted, but his *anxiety* persisted (McLean, 112). Surely, these were social mistakes that were likely to take on more importance a century ago than they do today, but the Kaiser's idea that war was likely to emerge because of a lack of courtesy is solid evidence that his emotional disposition was not one in which Edward or the British were seen in a favorable light. This was not always the case for the Kaiser. As recently as 1901 when he attended the funeral of his grandmother Queen Victoria, Wilhelm was described as a rampant Anglophile. Roderick McLean (97) describes the Kaiser as being "in full accord in matters of politics" with new King Edward. Wilhelm was very much aligned against Russia, while the King was still bitter with France about Fashoda, and with Russia about its designs in Central Asia and the Far East. During one visit to London in 1901, Wilhelm repeatedly stressed the benefits of an Anglo-German alliance, and he also awarded the highly prestigious Order of the Black Eagle to Lord Roberts, the commander-in-chief of the British Army (Eckardstein 1921). What led to the fundamental changes in the emotional disposition of Wilhelm to Edward and Britain? Given the sudden onset of this kind of paranoia and fear, and the temporal match with the entrance of Germany into its first inflection point, it is fair to at least suggest that an environmental factor such as a critical point was likely responsible for the Kaiser's behavior.

The Kaiser's landing at Tangier in March of 1905 was a direct challenge to the Anglo-French Entente, and was the real initiating event behind the ensuing Moroccan Crisis. While French diplomatic moves with Spain and Britain were the first "moves" in an attempt to garner greater control over Morocco, it has already been mentioned that the Germans were not very concerned about the strategic value of Morocco. In fact, the Kaiser was in favor of French expansion in that area, if it diverted their attention from Alsace-Lorraine. The real threat to Germany was the *rapprochement* taking place between Britain and France, and thus the Kaiser's trip to Tangier was not a response to French moves in Morocco, but the initiation of a challenge to the Entente Cordiale. Despite the fact that Wilhelm and Bulow attempted to frame the issue around French violations of the 1880 Madrid Treaty, the conflict over Morocco was really an extension of the simultaneous anxiety and overconfidence exhibited by the Germans at that time. At the same time Wilhelm was increasingly fearful and suspicious of his country'sslowed growth and diplomatic encirclement, he was more than willing to use brash diplomatic moves - such as the landing at Tangier – as a way to demonstrate German influence in the political sphere.

British leaders, for their part, were both extremely alarmed by the German challenge in Morocco and extremely liberal with their commitment of military support to France in case the Crisis escalated to the point of war. Thus, while Edward and Lansdowne viewed the Moroccan Crisis as a grave challenge to the nascent Entente, they were quite willing to risk war in order to protect the integrity of the

alliance and maintain the increased status they had acquired through it. As Lansdowne wrote to Délcassé on April 24th, 1905:

> "The British Government finds that the conduct of Germany in the Moroccan question is most unreasonable in light of your attitude, and it desires to give His Excellency all the support in its power. It seems not improbable that the German Government may ask for a port on the Moroccan Coast. In that event, the British Government would be willing to join the French Government in offering strong opposition to such a proposal, and it asks you, in case such a question is raised, to give to the British Government full opportunity to concert with the French Government upon the measures which might be taken to meet that demand" (British Diplomatic Documents: III, p. 248).

Though not as striking as the contradictory emotions expressed by Bulow and Wilhelm, Lansdowne and Edward, as shown by their sharp but confident reaction to the German challenge, offer solid evidence that their country's passage through a second inflection point created an atmosphere of emotional contradiction. There was anxiety over the potential breakup of the Entente and the resulting loss of prestige that would occur, but there was also a "rejuvenated" spirit in regards to the British willingness to escalate a confrontation, and eagerness to meet the Germans on the battlefield. This coupling of anxiety over maintenance of role with a desire to fight for a "return to glory" is further evidence of the contradictory emotional states that can arise during critical points along the power cycle.

Even before the Kaiser's landing, Edward was already full of mistrust of the Emperor and his misdoings. The landing itself only worsened Edward's mistrust. Lord Lansdowne described the Tangier event as "an extraordinarily clumsy bit of

diplomacy" (Lascalles, 4/9/1905). British and French concern was heightened by the Kaiser's strong words in a thinly-veiled threat to France: "As to France, we know the road to Paris, and we will get there if needs be. They should remember that no fleet can defend Paris" (McLean, 114). Edward responded to the Kaiser's cocksure comments with derision:

> "I consider that the Tangiers incident was one of the most mischievous and uncalled for events which [Kaiser Wilhelm] has ever undertaken. It was a gratuitous insult to two countries – and the clumsy theatrical part of it – would make me laugh were the matter not a serious one. It was a regular case of 'Bonbastes Furiouso'! I suppose he will never find out as he will never be told how ridiculous he makes himself" (Edward to Prince Louis of Battenberg, Broadlands Archives 4/15/1905).

Edward went on to say that "I have tried to get on with him and shall nominally do my best till the end – but trust him – never. He is *utterly false* and the bitterest foe that England possesses" (Edward to Prince Louis of Battenberg, Broadlands Archives 4/15/1905). Perhaps again out of *simultaneous feelings of fear and strength*, Wilhelm responded to these remarks by exclaiming once more "The English Fleet cannot protect Paris from our conquest!" (McLean, 115).

By the middle of July 1905, Edward's distrust of Wilhelm was complete. He made an indirect but easily understood reference to Wilhelm in a letter to Prince Louis that month: "As regards the 'bull in the china shop' policy of a certain most energetic but tactless not to say dangerous Sovereign" (Broadlands Archives, Edward to Prince Louis of Battenberg, 7/15/1905)! In Germany, Chancellor Bulow became totally aware of the King's suspicion of Germany and the Kaiser, and the fact that

Edward had lost all trust in Wilhelm – at least partly because of his Morocco policy (McLean, 119).

As the Algeciras Conference opened in early 1906, there was some hope of patching up relations between Britain and Germany. But as the conference progressed and Germany became increasingly isolated due to Bulow's unwillingness to settle, Wilhelm again displayed his sometimes irrational suspicion of Edward.[28] He took meetings between the British, French and Spanish as unmistakable evidence that the three were engaging in a political intrigue aimed at denying Germany a rightful settlement at Algeciras. Wilhelm was particularly furious at Edward, as noted by Count Zedlitz, who was manager of the Royal Household:

> "He is furious at the machinations of his uncle, the King of England, against him, and ascribes all rumors which crop up now and again as to meetings between the King and himself to English Intrigues" (Zedlitz 1924).

While the final settlement at Algeciras brought about a minor *rapprochement* between Edward VII and Wilhelm II, their relationship was characterized by a certain irrational animosity up to Edward's death in 1910. The fact that fear, anxiety, suspicion and over-confidence dominated Anglo-German relations at the turn of the

[28] During the crisis of 1905 and the Algeciras Conference in 1906, it was the Germans who were most recalcitrant and difficult when it came to reaching a negotiated outcome. Indeed, for the bulk of the Algeciras meetings, the Germans were the sole objectors to a series of proposals, some of which were actually put forth by their increasingly impatient allies. With this in mind, it seems more appropriate to view the Moroccan Crisis as a result of German anxiety and over-confidence that accompanied their passage through the high turning point. British and French responses were also dictated by their respective location within and outside of a critical period on their relative capability cycle. Britain, just passing their second inflection point, felt rejuvenated and was unwilling to cede any additional prestige to the upstart Germans. Thus, it was the British reaction to Wilhelm's landing at Tangier that solidified the crisis, not the French response, which was actually quite unremarkable given the fact that it was their specific colonial ambitions being targeted.

century meant that the foundations for war between the two countries had been laid well before the events of 1914. The likelihood that Wilhelm's and Edward's emotional traumas were at least partly caused by their respective passage through critical periods lends greater credence to the notion that interstate conflict can result from the impact of structural change on the decision-making calculus of individual leaders. The connection drawn here is complemented by the association of critical periods with emotional distress in the international politics simulation to be discussed in the next chapter. Together, these analyses of critical points and individuals' perceptions are most crucial for addressing the larger goal of this dissertation, which is to establish a connection between structural change and the foreign policy decision to go to war.

Concluding Remarks

In this chapter, a case study of the Moroccan Crisis of 1905 has been presented in order to understand the substantive relationship between the capability changes taking place in the international system at the turn of the century and the specific behaviors of British, French and German officials during an important confrontation along the road to the First World War. A brief background of the Moroccan Crisis has been provided, which emphasized the dynamics of European influence in Morocco, the French decision to increase their claim to that country, the strong German reaction to

this decision, and the resulting Algeciras Conference that settled the dispute between the Germans on one side and the new Anglo-French Entente on the other.

After this background was presented, a detailed analysis of the British, French and German relative capability cycles was conducted. Special attention was given to the location of the three countries on their cycles at the beginning of the twentieth century, and the presence of any critical points. It was shown that Britain and Germany were passing through the second inflection and high turning points on their respective cycles, while the French were still in a state of relative decline. With this information in hand, I suggested that, although the French made the initial move in the Moroccan Crisis, they were reluctant to escalate the confrontation to the point of war. This suggestion was supported by the forced resignation of French Foreign Minister Délcassé, who was the only proponent of escalation in Paris. I went on to posit that it was German and British policy that almost succeeded in transforming the Moroccan Crisis into a world war. The Germans "threw down the gauntlet" with Wilhelm's visit to Tangier, while extensive intervention by the British in the Franco-German negotiations pushed the French to a level of resistance and potential escalation that they would have otherwise stopped well short of.

Drawing further insight from earlier theoretical discussions of the specific impact of each type of critical point, I argued that Britain's behavior was driven by motivation to protect itsrole surplus in Europe. This motivation was exacerbated by the "delusions of grandeur" that often accompany a country's passage through its second inflection point. German leaders, on the other hand, were exhibiting extreme

mood swings due to their country's location at the high turning point in its relative power cycle. Wilhelm was at once obsessed with regaining his rightful place as "Grand Arbiter" of Europe and extremely anxious about a closing window of opportunity to attain that goal in light of the impending rise and capricious alliance behavior of Russia.

Evidence to support these arguments, and the more general relevance of the power cycle framework was gathered into three broad areas, entitled: the importance of multilateral capability shifts, the motivation of role surplus or deficit, and – most important – the emotional and psychological impact of critical points on key decision-makers. These three areas are examples of power cycle theory at the system, state and individual levels of analysis. In the next chapter, a series of International Politics Simulations offer much more direct and unfiltered evidence in regard to the purely emotional components of the power cycle framework. This is possible because the quasi-experimental environment allows for a more controlled study of the relationship between critical points and cognitive and emotion stress, and a more direct set of observations regarding the participants' reactions to environmental conditions in the simulation that mimic those of a critical point.

CHAPTER IV

EXTENDING THE LOGIC OF POWER CYCLE THEORY TO A SIMULATED INTERNATIONAL SYSTEM

In Chapter II, a statistical analysis of major power conflict behavior between 1816 and 2001 verified the propositions set forth by the power cycle theory. In the preceding chapter, a case study of the Moroccan Crisis was used to dig deeper into the impact of critical points at the systemic level and emotional trauma for British, French and German leaders at that time. Through that case study analysis, the fundamental connection between structural change, foreign policy and war was strengthened. In this chapter, I ask: Do the primary tenets of power cycle theory retain its explanatory strength beyond the preceding statistical and case study analysis of interstate conflict behavior among major powers? To answer this question, data from four separate classroom simulations are used to further test the relationship between critical periods, foreign policy and war. Results from several quantitative tests will show that "simulated" states experience relative capability growth and decline in much the same way as their real-world counterparts. Specifically, relative capability changes in the simulations are best modeled by using the same logistic function applied in the preceding statistical analysis. My findings also suggest that interstate conflict is highly correlated with the critical periods that occur during the simulations. For each country, rates of war participation during the games are

significantly higher during critical periods than they are during the remaining periods. Rates of war initiation are also higher during critical periods. However, unlike the earlier statistical analysis, this difference is not significant. There is no difference found in the severity of wars during critical and non-critical periods.

Qualitative evidence of foreign policy behavior in the simulations mirrors and bolsters the power cycle explanation of the Moroccan Crisis, which emphasizes the importance of power shifts at the systemic level, tension resulting from role deficit or surplus at the state level, and the emotional and cognitive trauma imposed by critical points at the level of the individual decision maker. In this chapter, the focus is on the relationship between system-level power shifts (and subsequent critical periods) and overall uncertainty, sudden reshuffling of foreign policy objectives and a heightened perception of threat. I find that simulation participants have a great deal of difficulty adapting to critical periods and the abrupt relative capability changes they signify. Written participant reports, email correspondence and classroom notes indicate that critical periods lead to radical reversals in projected foreign policy strength, objectives, threats as well as an overall heightened feeling of insecurity.

By generating "new" data in an experimental setting, it becomes possible to artificially extend the empirical domain of power cycle theory beyond the traditional and limited realm of interstate war during the last two hundred years.[1] In a sense,

[1] Pedagogically, the benefits of classroom simulations are well-documented. A large body of literature is devoted to explaining existing simulations (Guertzkow & Cherryholmes 1966; Herzig & Skidmore 1995; Kaufman 1998; Lantis 1996; Lantis 1998), explaining and exemplifying the growth of computer-based simulations in international relations (Bremer 1977; 1987; Starkey & Wilkenfeld 1996; Starkey and Blake 2001), and weighing the scientific value of simulation-based research (Wolfe and Crookall, 1998). In almost every case, this literature finds simulations to be an extremely valuable tool in the international relations classroom. In her simulations of Middle Eastern Politics, Beth Dougherty finds

these simulations allow us to apply the propositions found in the preceding chapters to four entirely "new" international systems.[2] In this chapter, I will systematically

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that students develop skills in number of areas, including: Public speaking, critical writing and thinking, group interaction, the importance of multiple perspectives and an increased understanding of the complexities of international politics (Dougherty 2003).

[2] Is it actually possible to measure the effect of critical points on perceptions, emotions, and ultimately the conflict behavior of the subjects? What about the possibility of systematic bias in the structure of the game, or the chance that any correlation between critical periods and conflict behavior is indeed spurious (e.g. there is an outside variable that accounts for the variance in foreign policy expectations, perception of threat, bellicosity, etc.)? Before moving on, it is important to briefly address potential threats to both the internal and external validity of the simulation exercise.

Internal Validity

Systematic Bias: One reason that the simulation is considered an experiment instead of a formal experiment is that subjects are presented with background information such as history of the country they represent, that country's primary foreign policy objectives and even personal objectives that vary by role adopted by the subjects.[2] To prevent such a situation from occurring, all country histories are kept purely descriptive, and general types of foreign policy objectives are randomly assigned to countries. In addition, initial factor allocations are also randomly assigned to countries, after their histories and geographical location have been determined. The presence of background information such as country history, personal objectives, country objectives and geographical position also raises the possibility that one of the independent variables accounts for any variance that occurs in subjects' perceptions or bellicosity. If the purpose of the simulation was to test for differences in subjects' general conflict behavior over the course of the entire simulation, these factors may indeed account for some substantial amount of variance. Still, if these variables were included as controls in a model that tests the effect of critical points on conflict behavior, this problem would be sidestepped. The fact that I am interested in the *timing* of perceptions and conflict behavior (as it relates to the presence of critical points) controls for the potential effect of "outside variables" that have a consistent impact for the duration of the simulation. For example, the role of geography (perhaps in terms of the number of borders) is constant during the simulation. Because I am interested in comparing changes across time, geography cannot account for any significant differences that are detected. In the end, no other variable (of those embedded in the simulation) can account for the timing of perceptions and behavior the way that critical points can. It is quite challenging to achieve perfect internal validity in an experimental setting that must balance both research and pedagogical requirements. I do feel, however, that the simulations were structured in such a way as to minimize the danger posed by two major threats to internal validity – systematic bias and the potential for spurious correlations between key variables. As an additional note, it is important to mention that this simulation is not designed to be a formal experiment in a laboratory setting. As a result, there is less control exerted over the everyday running of the games than some might like. In my opinion, however, the lack of artificial control generates a richer game in that participants have a wider range of options and strategies available to them. With this in mind, the strong relationship between critical periods and conflict behavior appears even more convincing.

External Validity

Simulations have frequently been criticized for their lack of generalizability to the real world. This critique must be taken seriously. The contrived nature of the simulation – while perhaps enhancing internal validity – means that the conditions under which data are generated do not resemble in any

evaluate the ability of power cycle theory to explain conflict behavior among eight fictitious states that interact on the imaginary continent of Aetolia.[3] In relation to the broad goals of this dissertation, results from the International Politics Simulation highlight:

- The empirical relevance of power cycle theory to political systems beyond the major power system between 1816 and 2001, such as regional political systems, or systems that, due to temporal constraints, have yet to develop.
- The robust nature of the results generated in the preceding statistical analysis. This is done not only by expanding the scope of observations included in the study, but also through the use of different strategies to test power cycle theory.

The remainder of this chapter will be organized as follows: First, a basic introduction to the simulation itself will be provided, although detailed discussion of the rules and guidelines of the simulation are presented in Appendix 6. I suggest that

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meaningful way the conditions present in the real world. Because of this, it is possible to argue that there is no way to ensure that the conclusions drawn from the simulation are applicable outside of the simulation itself. Careful design of the "contrived" environment, however, increases the external validity of the simulation. By replicating the dynamics of the "real" international system as much as possible, I believe that the decision-making environment faced by subjects in the simulation contains some of the same stimuli that might affect real officials. There are a couple of ways to determine the extent to which "real world" conditions have been recreated in the simulation. One way would be to replicate as much as possible the international environment during a specific time period, and see if the behavior and emotions of the subjects matches the historical record. While I have taken many of the basic ideas for the simulation from the era preceding the First World War, I do not claim to have replicated the international environment at the beginning of the 20th century. Another method would be to assess the potential external validity of this simulation in a slightly different manner. By testing well accepted theories of international behavior with the same data that I use to test the propositions of interest, a certain amount of cross-referencing can occur. For instance, it is well accepted that states with more geographic borders tend to be involved in more interstate conflict. Also, more powerful states are more diplomatically and militarily active in the system. If the data generated by the simulation support these – and other –well established generalizations, then the data can be seen as relatively valid for to applications beyond the simulation itself. In the end, the external validity of any simulation will be in question, but with proper consideration, the data generated in this simulation should be valid in their support or rejection of propositions related to power cycle theory.

[3] These eight states are named, in alphabetical order: Arcadia, Caria, Chalcidice, Epirus, Euboea, Messina, Thessaly and Thrace.

the reader familiarize him or herself with the logic of the International Politics Simulation in order to better understand the nature of the data, methods, tests and results found in this chapter. Second, specific propositions are listed. These propositions address three major aspects of power cycle theory:

- States do indeed traverse a relative capability cycle that includes periods of power growth, maturation, decline and rebirth over time.
- Behaviorally, bellicosity increases in a statistically significant manner during critical periods.
- Cognitively, radical changes in foreign policy projections, objectives and perceived threats are much more likely to occur during critical periods than non-critical periods.

In this section, the methodology and data used to test these propositions will be discussed and the key results will be presented as they are relevant for judging my propositions. Qualitative evidence will take center stage in the third section, with special attention to the cognitive and emotional impact of critical points on the decision making calculus of individual participants. Complementing my emphasis on the importance of structural power shifts in a multilateral context and historical power-role gaps for Britain, France and Germany in the preceding case study, this chapter completes a holistic explanation of the substantive connection between critical points and conflict at the systemic, state and individual levels of analysis. The chapter will conclude with a brief summary of the primary findings, and a discussion of some potential extensions of the International Politics Simulation.

The International Politics Simulation

As part of an upper division international relations course, students were asked to participate in a two-week classroom simulation exercise.[4] Depending on scheduling issues, the simulation spanned either four, seventy-five-minute class meetings or six, fifty-minute meetings. A total of four separate simulations are analyzed as part of this study. Two simulations took place in the spring of 2003, as part of two courses entitled "Problems in International Relations." Two more simulations were run in the fall of 2003 during two courses that addressed "International Behavior." In each of the four exercises, approximately 40 students participated. Although participation was optional, only one student (out of approximately 160) decided to complete an alternate paper assignment. In the spring of 2003, the game took place during the 10th and 11th weeks of the semester. Based on student feedback, I moved the game up to the 8th and 9th weeks of the fall 2003 semester. Within-semester games took place under identical constraints.[5] There were, however, some slight changes made to the

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[4] Due to the structure of the International Politics Simulation, it is classified as "exempt from review" by the University of Colorado Human Research Committee. This classification is based on the characterization of the simulation as research involving normal educational practices (i.e. research on instructional techniques, curricula, classroom management methods) or: A new research proposal which poses no risk to the subject and which does not deal with sensitive or personal aspects of the subject's behavior. There are no interviews and all data are gathered from unidentifiable subjects. Specifically, there is only collection of publicly available data or of pathological specimens/records where the information is anonymous.

[5] Students are divided into 8 teams, each representing a fictional country on the continent of Aetolia. There are also two "frontier" lands to the north and south of Aetolia. These lands are named Cyclades and Sporades, respectively. Typically, there are 5 members on each team. These members represent

simulations between the spring and fall semesters in order to accommodate some different proposition testing and scheduling requirements. These differences will be discussed shortly. Complete rules and guidelines of the game remained constant throughout all four exercises.

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different components of a country's government. Specifically, there is a Chief Decision Maker (CDM), Diplomat (DIP), Economic Advisor (ECA), Intelligence Officer (INT) and an Opposition Leader (OPP). If there are fewer than 40 students in the class, some countries will have four members, and function without an Opposition Leader. As part of the general packet that introduces students to the game, a brief and broad history of each country is given. This history usually includes some description of the climate of each country and characteristics of its inhabitants. The description is intentionally vague, so as to not bias the perceptions of the students. At the same time, it seems to be successful in establishing a basic sense of identity and nationalism for the teams. In the general packet, students also become aware that their position within their team determines their individual objectives in the simulation. For example, all Economic Advisors are motivated to push their country toward more investment in industry. These individual objectives are meant to simulate some of the competition that exists domestically within governments, and helps to shape eventual foreign policy outcomes.

In addition to individual objectives, each team has knowledge of its own secret group objectives. These objectives are delivered to the teams in a private packet, and are territorial, diplomatic or economic in nature. There are six objectives for each team (2 from each area), with one from each issue area being worth 10 "objective points" and the other worth 5 points. Territorial objectives might include the acquisition of a certain piece of land, while economic objectives could require two countries to sign a specific kind of trade agreement. One of the major diplomatic objectives in the game is the establishment of an international organization to promote peace on Aetolia. Some objectives emphasize collective action, some involve competition over resources, and some require compromise in the face of competing interests. Teams can receive full or partial credit for all objectives. The team that achieves the most objective points is deemed the winner. At the end of the simulation, team and individual winners are announced in class.

The game is dominated by two major themes: The tension between individual and group objectives (simulating "two-level games" to a certain extent) and negotiation and compromise between countries in the face of varying degrees of conflict. In an even broader sense, the International Politics Simulation is about the formulation of foreign policy in a variety of decision making settings. As a constant, students and teams have a wide variety of foreign policy strategies available. When conflict develops with another team, there are options ranging from total compliance to a declaration of war. The variable, or "experimental treatment" of the game is the presence or absence of simulated critical periods for different countries at different points in the game. In this way, the simulation allows the analyst to monitor and test foreign policy behavior under different constraints. In what situations are leaders more likely to reach a non-violent resolution in the face of conflict? When do leaders refuse to compromise, instead choosing to escalate a confrontation to the point of militarized violence? For this project – a more specific set of questions fall within a broad inquiry: "Are students in the exercise more likely to exhibit bellicose behavior during simulated critical periods in their country's power cycle than they are during the remaining periods?"

Propositions, Methods and Results

Six propositions can be tested with data generated by the simulations. The first two address the fundamental existence of relative power cycles within the simulation. If states are found to follow the patterns of capability change proposed by power cycle theory, then the third and fourth propositions can explore the behavioral link between critical periods of these cycles and any conflict that might emerge during the game. The fifth and sixth propositions address war severity during critical periods and remaining times. Evidence will be tested through quantitative analyses. Once a relationship between critical periods and bellicosity is established on a behavioral level, qualitative data will be helpful in clarifying the psychological and cognitive effect that critical periods have on the projections, objectives, perceived threats and foreign policy calculus of individuals within the game. Although the nature of the data (non-random and potentially biased) prevents conventional hypothesis testing, this qualitative evidence (from written student reports, classroom notes and thousands of emails) is an effective way to validate the conclusions reached in the case study analysis of the Moroccan Crisis. The six propositions to be tested in this chapter are listed below. Each of the propositions is tested in accordance with the data and methodology presented. Results will be listed for each proposition, followed by a brief discussion of those results.

Proposition 1: Over time, countries will experience changes in relative capability share that are characterized by periods of growth, maturation, decline and then rebirth.

The foundation of power cycle theory is the notion that, over time, the relative capability share of major powers rises, peaks, declines and then begins to rise again. Hence the "cycle" in power cycle theory. Results from the preceding statistical analysis of major powers between 1816 and 2001 support this proposition.[6] The first pair of propositions explores the possibility that fictitious states on the continent of Aetolia will experience a relative capability cycle similar to that of "real world" powers.[7] In order to determine the nature of change that characterizes relative capability patterns in Aetolia, it is necessary to collect information regarding time, country membership and power over the course of the simulation. Relative power cycles were predetermined for two of the four games, and were allowed to fluctuate in the other two. Thus, only two of the four simulation games can be used to test this hypothesis. In the two games where cycles were predetermined (without participant

[6] A logistic curve reflecting growth and decline in a finite environment (e.g. an international system with a total share of relative capability capped at 1.0) was shown to more accurately model power cycles than a tradition linear regression model. This confirms the idea that states are not terminally in a phase of growth or decline. In the international system, what goes up must come down (and vice versa). According to power cycle theory, the traumatic moments of change embedded within the cycle of rise and decline are a driving force behind major power conflict.

[7] Due to the temporal constraints of the simulation (six turns) it is almost impossible for states to traverse an entire relative power cycle. Even with almost 200 data points, the large-N analysis reveals that only one or two real states have traversed an entire cycle. Consequently, these hypotheses will be supported if the available data follows at least a portion of one complete relative power cycle. The litmus test will be a comparison of model fit between a logistic and linear regression model. This is an important first step for this portion of the overall project. If the simulation does not generate relative capability cycles similar to the real world data, then one of two problems emerges: Either a very basic premise of power cycle theory (indeed, one of the core assumptions) is cast in doubt, or more likely, the simulation itself is flawed in its ability to serve as a reliable test of the hypotheses of interest.

knowledge), the presence and temporal location of critical periods was (by definition) fixed before the simulation began.

Time: Each simulation is comprised of six turns, with each representing a temporal observation point. Thus, the unit of analysis is a "country-turn." If one relates these turns to traditional Correlates of War analysis, for example, one turn might equal a five-year interval. Thus, each game in question has six time points across which relative capability share can be plotted. One class meeting is devoted to each turn, so the amount of "action" across turns is constant.

Country Membership: Unlike the international system between 1816 and 2001, membership in the major power system of Aetolia remains constant over time. Thus, while relative capability is shared between as few as five and as many as nine states in the former, capability is shared between 8 eight states for the entire six-turn run of the International Politics Simulation.

Relative Power Share: Traditionally, national capability is calculated by some combination of indicators representing demographic, economic and military strength. In the statistical analysis found conducted in this dissertation, total population, urban population, military personnel, military expenditure, energy consumption and iron and steel production are the indicators used.[8] For the purpose of the International

[8] These six factors also comprise the Composite Index of National Capability (CINC) data commonly used by the Correlates of War Project.

Politics Simulation, however, a simple, single indicator of national capability makes more sense. First, participants need to have easy perceptual access to their level of power in the system. This might not be possible if they are asked to conceive of their power in a number of different domains. Second, the wide variety of arenas in which power can be leveraged demands that it be extremely fungible. A single indicator allows for this. Thus, power in Aetolia is measured in each country's factor allocation, which – for planning purposes – its officials receive two nights before the next game turn. Factors in Aetolia can be and are used for policy actions ranging from public works projects to granting foreign aid to engaging in warfare. The catch is that each country must allocate its factors to different budget areas at the beginning of each turn. So, while a country can conceivably use any of its factors for any purpose it chooses, it is more constrained in its factor use once these allocations are made. Allocation areas consist of Military, Industry, Welfare and Special Action. Once allocated to Welfare, for example, factors cannot be used to engage in military operations on that turn. Special Action factors can in effect be held in reserve (they can be used to deal with situations that arise during a turn), but they cannot be used in warfare either. This rule is introduced into the game to simulate a basic form of the security dilemma, where spiraling military allocations result from uncertainty about not only the other states' intentions, but their military allocations as well.

At the start of the game, all countries are given a certain factor allocation. This allocation differs among countries, but is constant across games. For all games, the first allocation is as follows.

Country	Allocation	(Rank)
Arcadia	**2217**	**(1)**
Caria	**1494**	**(4)**
Chalcidice	**478**	**(7)**
Epirus	**464**	**(8)**
Euboea	**1654**	**(3)**
Messina	**2066**	**(2)**
Thessaly	**655**	**(6)**
Thrace	**972**	**(5)**

After the first allocation, however, relative capability share fluctuates according to a fixed formula that is determined before the game, and is not known by the participants. This formula is not biased toward creating a cyclical pattern in relative power growth, so the resulting patterns are just as likely to fluctuate in a generally random manner as they are to incorporate the distinct phases of growth, maturation, decline and rebirth as argued in the second proposition.[9] At each turn, each country's total factor allocation represents a specific percentage of the total factors for all countries on Aetolia. This percentage represents a countries relative capability share on any given turn. Appendix 9 illustrates the relevant capability data during each country-turn for the two simulations relevant to this proposition.[10] To construct

[9] The formula for computing relative capability share is as follows: As a percent of the previous turn's factor total, the military allocation is subtracted from the industrial allocation. This – in crude fashion – represents the benefits of peacetime investment in industrial growth and the costs not only of war but of maintaining a large force presence overseas. The difference between industrial and military allocation percentage results in a number between -100 and 100. Objectives achieved by countries on the previous turn also affect that country's next factor allocation. Specifically, achieving 10-point objectives result in five additional percentage points of growth. A 5-point objective garners two points of growth. Total growth earned from objective achievements is added to the number resulting from the difference in industrial and military allocations. This total number (positive or negative) represents the percentage of growth or decline that a country enjoys for the next turn. For example, if Arcadia begins the turn with 2,217 factors, and allocates 443 (20%) to Industry, 222 (10%) to Military and achieves two 10-point objectives (10 points of additional growth), its next total factor allocation will be 2,217*1.20, or 2,660.

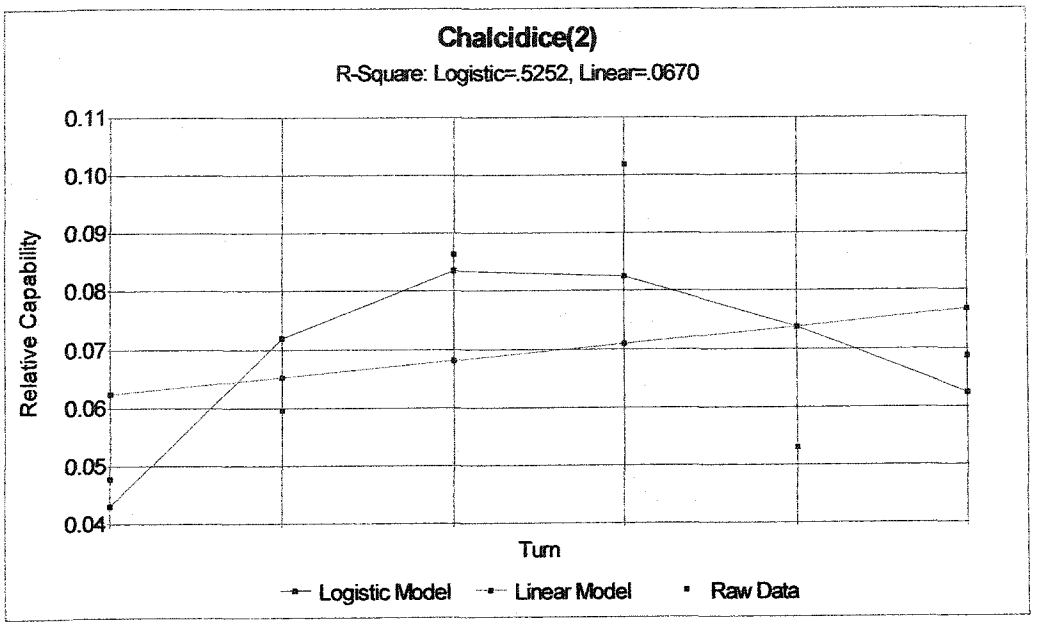
[10] It is important to consider again the possibility that a country may be growing in absolute terms while suffering a declining share of relative capability share in the system as a whole.

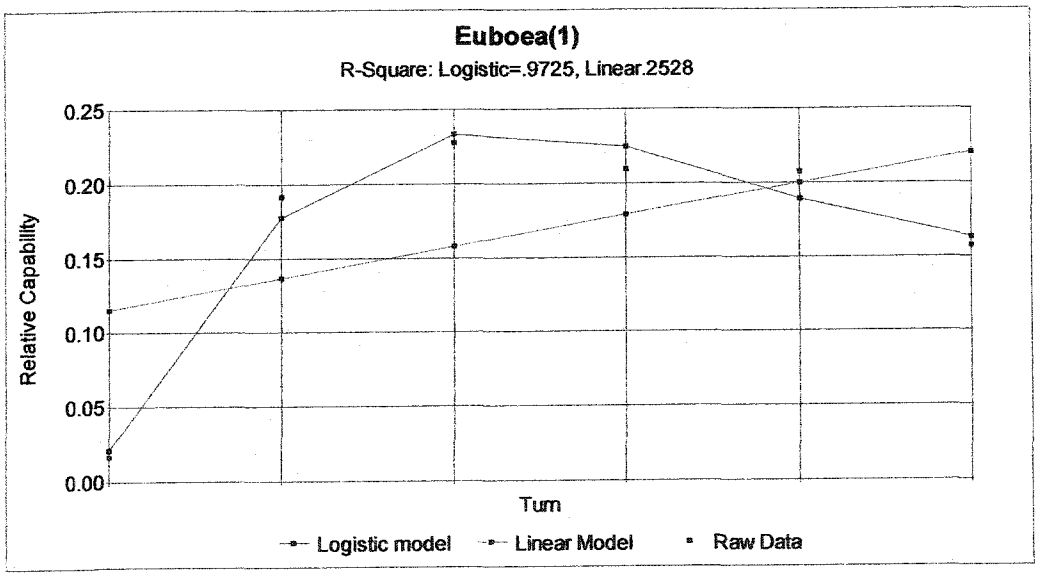
graphs for each country, raw relative capability shares are simply plotted over each time. Visually, most graphs should represent at least a portion of the pattern proposed by power cycle theory. If, however, the majority of graphs represent a linear pattern of constant growth (i.e., no turning or inflection points), or are random (in the sense that no trend is detectable), this proposition will be rejected, and the relevance of power cycle theory to the International Politics Simulation will be put in doubt.

Graphs are plotted for each country. These graphs represent the relative capability cycles of all states included in this analysis.[11] They contain three separate series of information. Raw relative capability data are represented by unconnected black boxes. Linear and logistic regression models are fitted to the data, and depicted by a dashed and solid line, respectively. Two sample graphs are presented in Figure 1, while the rest can be found in Appendix 10. In Figure 1, the y-axis indicates relative capability share at each turn (x-axis) during the simulation. Underneath the country name is the R-square statistic for both the logistic and linear models.

[11] In games 3 and 4, the relative capability cycles were a controlled feature of the simulation. Specifically, relative capability cycles were enforced upon the students – factor share was not allowed to fluctuate in reaction to game events as it was during games 1 and 2. Thus, it is only data from games 3 and 4 that is suitable for testing propositions 1 and 2. Although not applicable to the current test, relative capability data for the two games with predetermined factor allocations can be found in Appendix 9.

Figure 1: Relative Capability Cycles for Two States in Aetolia





By definition, the logistic model will always offer a better fit for the raw data, as it encompasses and then expands upon the explanatory variables used in the linear model. Whether or not this more accurate fit is worth the lack of parsimony is the primary question addressed in Proposition 2. For now, we are not concerned about parsimony, but rather the general pattern that best represents the changes in relative capability shares for the simulated states under analysis. Does the best fit (represented by the logistic model) indicate a turning or inflection point in the raw data? If so, then the country in question can be assumed to be traversing at least a portion of the relative capability cycle hypothesized by power cycle theory. If instead, the general pattern is found to indicate a constant/linear trend of growth or decline (or no trend at all), then no evidence of a relative capability cycle is found, and this proposition is not supported.

Visual inspection of the sixteen graphs shows that 13 of 16 states exhibit the kinds of turning or inflection points that are symptomatic of a relative capability cycle. Thus, over 80 percent of observations support the proposition that over time, states experience a pattern of power growth, maturation, decline and rebirth. Of the 13 states exhibiting at least part of a cycle, 6 pass through a high turning point, 6 pass through a low turning point and one passes through both.[12] This variation in patterns bolsters confidence in the results by eliminating the possibility that a systematic bias was introduced into the simulation that promoted a specific pattern of relative

[12] While not undertaken in this dissertation, a promising area for future analysis of simulation data might be an exploration of the differential effects (primarily in terms of risk propensity) depending on the nature of the critical point being experienced. Such an analysis could be structured in similar fashion to the portion of the preceding statistical analysis linking power cycle theory with insights from prospect theory.

capability growth or decline. Also, the fact that cyclical patterns show up after only six observation points (the number of turns in the games) strengthens the results. It is likely that the remaining three, "non-cyclical" states would indeed pass through a turning point if the number of observations were to be increased. Based on the evidence, Proposition 1 is supported, and the foundation of power cycle theory is strengthened.

Proposition 2: This pattern of change is most efficiently represented by the logistic growth function proposed by power cycle theory.

Because power cycle theory proposes that relative capability cycles are comprised of non-linear segments of growth, maturation and decline, the logistic function should be the best fit for the raw relative capability data from the simulation. As mentioned, this statement is slightly misleading. The model representing the real best fit (in terms of variance explained) would actually be a six-term function mimicking the lines required to connect the six points of raw data for each country. This model might be the most accurate representation of the data, but it is not realistic for our purposes as social scientists interested in generalization. With this in mind, the best fit (in terms of parsimonious "bang for the buck") could be considered a simple linear model that captures general trends with very few explanatory variables. Indeed, a linear model should fit the raw data quite well if it is characterized by constant trends of growth or decline (or no trend at all) instead of a cycle of growth, maturation and decline. Power cycle theory (and Proposition 2), however, suggests that the best fit of the data

will be found through the logistic function, which models growth and decline in a closed system.[13] To test this proposition, we need to compare the "fit" of both models for data from all sixteen countries included in this part of the analysis. A detailed table, comparing logistic and linear fit for each graph is presented in Appendix 11.

Comparing fit via a simple R-square statistic is not sufficient to declare a winner from the two models. This is because the logistic function includes all the explanatory variables in the linear model (in this case only one – time), and then includes additional variables that are generated as the square and cube of time.[14] By definition, the R-square of the logistic model is higher than that of the linear model. As we see in Appendix 11, the R-square of the logistic model exceeds the linear R-square in all sixteen cases. However, if we "adjust" the R-square statistic in order to take into account the loss in degrees of freedom (via the inclusion of additional explanatory variables) while using the logistic model, we get a fair comparison. This comparison

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[13] The specifics of the logistic model are dealt with in much more detail in the preceding statistical analysis chapter. This function takes the form of:

$$C_{i,t} = \beta_0 + \beta_1 T + \beta_2 T^2 + \beta_3 T^3 + \varepsilon$$

Where $C_{i,t}$ represents the capability of country i at time t, and T represents time as determined by turn number. T^2 and T^3 represent the square and cube of the time variable.

Both linear regression and logistic regression models will be applied to the raw data, and if the logistic function is found to be a superior fit, this hypothesis will be supported. Fit will be judged by the adjusted R-square of each model. This statistic measures the amount of variation in the dependent variable raw capability data that is explained by the independent variables in the model (functions of time). Adjusted R-square statistics will be used to account for the different degrees of freedom present in both models. This is necessary because – without an adjustment – the logistic regression will by definition have a higher R-square because it encompasses all the independent variables present in the linear model and includes additional variables as well. Model fit will also be judged for the statistical significance of overall model fit. If neither type of model is statistically significant for the vast majority of countries, then the pattern of relative capability growth can best be described as random. If relative capability cycles do include phases of growth, maturation, decline and rebirth, then critical periods are likely to exist along these cycles. The remaining hypotheses are based on proposed behavioral and cognitive differences of leaders during critical and remaining periods.

[14] In simple terms, by squaring and cubing the time variable, the curvilinearity (read: cyclical pattern) of the logistic function is introduced. Again, for a more complete discussion of the logistic function, see the preceding chapter.

asks, in effect, "Is the extra bang worth the extra (two) bucks?" Based on the results, the answer is a definite "yes." In 11 out of 16 cases, the logistic model is pound-for-pound the better fit. The average fit of the logistic model (.5207) is higher than the average fit of the linear model (.3437) in a statistically significant manner. Together, these results suggest that Proposition 2 is supported by empirical evidence from the simulation. A logistic model of capability growth, maturation, decline and rebirth most efficiently represents the changes in relative capability occurring in Aetolia. For reasons already discussed in relation to Proposition 1, this support would likely be bolstered if more observation points were added to the simulation, allowing the "non-cyclical" data more time to display symptoms of a cyclical pattern.

Proposition 3: Simulated states that are experiencing a critical period will be significantly more likely to participate in a war during that period than they would be during the remaining periods.

Proposition 4: Simulated states that are experiencing a critical period will be significantly more likely to initiate a war during that period than they would be during the remaining periods.

These are the most crucial propositions tested with data from the International Politics Simulations. As much as possible, the tests are meant to mimic those performed on the real world data that were analyzed in the preceding statistical chapter. If the tenets of power cycle theory find are supported by behavioral data in a simulated world *in addition* to data from the international system itself, the primary

propositions of the research program will be proven quite robust in a variety of distinct settings. Support for the above propositions will help to solidify the strong behavioral connection between critical periods and the outbreak of conflict in any system. If relative power cycles do exist for countries on Aetolia, then it is possible to determine the temporal occurrence of critical periods for each country in the simulation. Table 1 lists the critical periods in the simulation by the temporal location within each separate game.[15] The methodology for determining the location of critical periods in the simulation games is the same as that employed in the earlier statistical analysis. Out of 96 "country-turns" taking place in the simulation, 31 percent (a raw tally of 30) of turns fall within critical periods. [16]

[15] As mentioned earlier, relative power cycles, and thus critical periods, were predetermined for Games 3 and 4. While this mandated their exemption from analysis of Propositions 1 and 2, they are included for the purpose of testing Propositions 3 through 6.

[16] This percentage is much higher than that generated by the historical record, but it is not a result of conscious planning by the analyst. In Games 1 and 2 (which had predetermined relative capability cycles and critical periods), only 10 of 48 country-turns (21 percent) were critical. This number is much more consistent with real world data. The overall percentage is increased substantially by the 42 percent of turns defined as critical in Games 3 and 4. Again, this was not by design – relative capability cycles in Games 3 and 4 were allowed to fluctuate according to events and decisions taking place in the simulation. The disparity does make it necessary to look at the two groups of games in separate as well as combined analyses. These separate analyses reveal that results are constant across both groups – overall results are not driven by events in one type of game.

Table 1: Critical Periods (by country) in the International Politics Simulation

	Turn 1	Turn 2	Turn 3	Turn 4	Turn 5	Turn 6
Game 1:						
Arcadia				Yes		Yes
Caria				Yes		Yes
Chalcidice						
Epirus						
Euboea				Yes		Yes
Messina				Yes		
Thessaly						Yes
Thrace				Yes		
Game 2:						
Arcadia			Yes			Yes
Caria						Yes
Chalcidice				Yes		
Epirus						Yes
Euboea				Yes		Yes
Messina				Yes		
Thessaly						
Thrace			Yes			Yes
Game 3:						
Arcadia		Yes	Yes			
Caria						
Chalcidice						
Epirus				Yes		
Euboea						
Messina				Yes		
Thessaly				Yes		
Thrace				Yes		
Game 4:						
Arcadia		Yes	Yes			
Caria						
Chalcidice						
Epirus				Yes		
Euboea						
Messina				Yes		
Thessaly				Yes		
Thrace				Yes		

Once critical periods are located, the relationship between these periods and foreign policy behavior can be established by quantitative tests. In general, power cycle theory suggests that there will be a positive and significant relationship between the structural presence of a critical period on a state's power cycle and that state's level of bellicose behavior in the international system during that period. Propositions 3 and 4 assert that participants in the simulation will be more likely to engage in conflict behavior during critical periods than during the remaining times. Propositions 5 and 6 posit that a positive and significant relationship exists between critical periods and war severity.[17] To test Proposition 3, "war participation" and the presence of a "critical period" are coded as dichotomous variables. For each country on each turn, a value of one is given to countries at war on that turn, and a value of zero is given for countries not at war on that turn.[18] A comparison of means test will then be run,

[17] The original power cycle work of Doran and Parsons actually emphasized the relationship between critical periods and the *initiation* of highly *severe* wars.

[18] It is important to consider the role of "war" in the game, and whether conflict behavior is inevitable or unreasonably likely given the rules and guidelines that teams are asked to play by. While teams are given a fixed set of objectives at the beginning of the simulation, they have a wide range of policy choices that might help them achieve those objectives. Economic objectives can often be met via multinational summits over free trade zones, or even bilateral agreements about resource sharing. Diplomatic and territorial objectives are also structured in such a way so that almost any set of policy tools can be applied toward an acceptable solution for all parties involved. Even territorial objectives that require the acquisition of contested land can be partially met if both sides (those that want the land and those that currently own it) agree on some compromise. For example, Arcadia and Messina both have objectives that require possession of a four-hex piece of land known as the Zacynthos. While full credit does require possession of all four hexes, both countries were able to receive considerable credit if they reached an agreement to share this land. I mention this to stress that participants have a full menu of non-violent policy options that can be used to solve even the trickiest conflicts in Aetolia. With this in mind, teams do have the option of declaring war as a final strategy. Wars are decided by the number of factors that the attacker(s) and defender(s) have available to devote to the conflict. Additional consideration is given to geography (the loss of strength gradient), economic strength and technology. There is no direct factor allocation benefit to declaring war (other than achieving objectives that are stated as a series of war aims), and there is also not the possibility of completely eliminating a country from the game – no matter how unbalanced the conflict is, or how extreme the war aims are. This is necessary to ensure that all participants are able to play the entire game. In short, the International Politics Simulation is structured specifically to:

comparing the mean value of the war participation value during critical and non-critical periods. If the mean value is significantly higher during critical periods than it is at other times, Proposition 3 will be supported. As a confirmatory test, a logistic regression will also be run, with the dichotomous war participation variable as a dependent variable in the model, and the dichotomous critical period variable as independent variables in the model. For each country, a number of control variables are also incorporated into the regression analysis, including its number of territorial borders, relative power rank in the international system, regime type and membership in military or economic alliances. The decision to incorporate these particular variables is based on the existing literature relating to aggregate analysis of interstate conflict (Geller and Singer 1998).[19]

The dependent variable of interest is defined, for each observation, as participation in interstate war on that turn. For Proposition 4, the dependent variable of interest is the initiation of war by country$_i$ at time$_t$. These variables are both coded dichotomously. As a result, Ordinary Least Squares is an inappropriate estimator for

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- Give participants a wide range of policy actions, both violent and non-violent
- Allow for objectives to be achieved via policy options short of war
- Limit the potential benefits of declaring war in order to discourage rash behavior that is easier to initiate in a classroom than in the "real world"

The rules and guidelines of the simulation do succeed in limiting any unreasonably frequent occurrence of war in the system. There is sufficient variation, however, in the frequency of war participation, initiation, and war severity to test the hypotheses of interest. The four simulations generate a total of seven wars over a total of twenty-four game turns.

[19] By introducing these controls, the logistic regression employed in this chapter should generate results that alleviate potential concerns that emerged from the decision to not use comparable control variables in the comparison of means tests presented in Chapter II.

this analysis. Instead, the above-mentioned logistic regression is run, with the following form:

$$W_{i,t} = \beta_1 + \beta_2 B_i + \beta_3 K_{i,t} + \beta_4 R_{i,t} + \beta_6 M_{i,t} + \beta_7 E_{i,t} + \beta_8 X_{i,t} + \varepsilon_{i,t}$$

where $W_{i,t}$ takes on the value of "1" if a country engages in war during that turn and "0" otherwise; $\beta_2 B_i$ is constant for each country, indicating the number of territorial borders it shares with other countries; $\beta_3 K_{i,t}$ is an interval variable coded 1 through 8, depending on the system rank of country$_i$ at time $_t$; $\beta_4 R_{i,t}$ is coded "1" for democracy and "0" for non-democracy for country$_i$ at time$_t$; $\beta_5 R_{i,t}$ is a measure of power concentration in the system, coded by the percentage of system capability held by the most powerful state in Aetolia. $B_1 X_{i,t}$ represents the variable of interest in the model which will vary, depending on the theory being tested (war participation or initiation). In the primary analyses of this panel data, a random-effects estimator is employed, although both fixed-effects and population-averaged estimators were used in a sensitivity analysis that generated no substantial variation in the results presented below. Again, the presence of a critical period should have a significant and positive effect on the probability of war participation for simulated countries in Aetolia. To test these arguments, mean rates of war participation and initiation were compared during both critical and non-critical periods. Also, a logistic regression analysis was run as both a robustness check and as a method for introducing several control variables that are popular in the conflict literature.

Results of these tests are presented in Tables 2 and 3. These results offer strong support for Proposition 3 (war participation) and more limited support for Proposition

4 (war initiation). For all simulation data, the mean rate of war participation during critical periods is over 75 percent greater than during the remaining periods. During 134 country-turns defined as non-critical, 33 states were at war for a mean of 0.2463. During 58 critical country-turns, 25 states were at war, for a mean of 0.4310. The difference between means is statistically significant at the $p<.01$ level. When each group of simulations is analyzed separately, both groups (Spring 2003 and Fall 2003) yield results similar to the combined tests. For the Spring 2003 data, the mean rate of war participation during critical periods (0.5500) is higher than the rate during other turns (0.2895). This difference is statistically significant at the $p<.01$ level. For Fall 2003 data, critical periods also have a higher rate (0.3684) than non-critical periods (0.1897). This difference is again statistically significant, at the $p<.05$ level.

Results from a logistic regression support those found from the comparison of means test. The results in Table 3 show that critical periods increase the probability of war participation in a statistically significant manner. In a logistic regression including all the control variables mentioned earlier, the presence of a critical period is the only variable that has an odds ratio indicating statistical significance at the $p<.05$ level.[20] The power concentration present in the system also has a significant and positive effect on war participation (greater concentration of capability in the top power correlates with a higher rate of general war participation) albeit only at the $p < .10$ level. Because the critical period variable is dichotomous, when the odds ratio is transformed into a raw coefficient (1.086, with a standard error of 0.362), it is

[20] The critical period coefficient itself is actually significant at the $p<.01$ level.

possible to interpret the effect of critical periods on the probability of war participation via the following equation:

$$\text{Equation 1: } \Delta_p = \beta_8 X_{i,t} [\, P_w (1 - P_w)]$$

where Δ_p is the increase or decrease in probability of war participation based on a one-unit change in the variable of interest (in this case, presence or absence of a critical period); β_8 is the coefficient estimated by the logistic regression model and P_w is the proportion of positive observations for the dichotomous dependent variable (in this case, war participation). For the variable measuring war participation, this percentage is 30.208. By solving this equation, we find that the presence of a critical period increases the probability of war participation by 22.9 percent:

$$\Delta_p = 1.086 \, [.30208 \, (1 - .30208)] = .2289$$

Based on strong supporting evidence from both a comparison of means test and a logistic regression model, data from the International Politics Simulation confirm the findings presented in the preceding statistical analysis. Leaders are much more likely to go to war when confronted with the sudden, drastic and traumatic changes in the tides of history that so often accompany passage through a critical period.

Table 2: Comparison of Means of War Participation, Initiation and Severity

	n	Means	t Value[a]	Probability[b]
Spring 2003 Simulations:				
War participation:				
Noncritical periods	76	0.2895		
Critical periods	20	0.5500	2.2155	0.0073
War initiation:				
Noncritical periods	76	0.1711		
Critical Periods	20	0.2000	0.2987	0.1914
War severity:				
Noncritical periods	20	894.95		
Critical periods	12	566.83	-1.0717	0.0731
Fall 2003 Simulations:				
War participation:				
Noncritical periods	58	0.1897		
Critical periods	38	0.3684	1.9708	0.0130
War initiation:				
Noncritical periods	58	0.0690		
Critical Periods	38	0.1053	0.6240	0.1335
War severity:				
Noncritical periods	11	1214.36		
Critical periods	14	1076.71	-0.3025	0.3086
Combined Simulations:				
War participation:				
Noncritical periods	134	.2463		
Critical periods	58	.4310	2.5914	0.0025
War initiation:				
Noncritical periods	134	.1269		
Critical Periods	58	.1379	0.2081	0.2088
War severity:				
Noncritical periods	31	1008.29		
Critical periods	26	841.38	-0.6404	0.7377

[a] Assuming equal variances.
[b] One-tailed significance test.

Rates of war initiation are also higher during critical periods than the remaining turns. For turns that fall within a critical period, the rate of initiation is 0.1379, compared to 0.1269 for all other times. This means that, on any given turn that is classified as "critical," there is a 13.79 percent chance that the country experiencing the critical period initiated a war. This compares to a 12.69 percent chance for all "non-critical" turns. This difference is not statistically significant. When the simulations are analyzed as separate groups (again, by semester), Spring 2003 games generate a mean of 0.2000 for critical periods and 0.1711 for non-critical periods. Again, the difference in means is in the hypothesized direction, but is not significant. Fall 2003 data indicate a mean of 0.1053 for critical periods and 0.0690 for remaining times. This difference in means approaches, but does not reach statistical significance.

Results from the regression analysis confirm those presented above. The existence of a critical period has a small and positive effect on the occurrence of war initiation, but this effect is far from significant. The inclusion of control variables indicates that the true impact of critical periods on war initiation in the simulation may even be less than suggested by the comparison of means test. Again, because the critical period variable is dichotomous, when the odds ratio is transformed into a raw coefficient (0.269, with a standard error of 0.495), it is possible to interpret the effect of critical periods on the probability of war initiation via Equation 1.[21]

$$\text{Equation 1: } \Delta_i = \beta_8 X_{i,t} [\, P_i (1 - P_i)]$$

[21] The proportion of positive observations for the war initiation variable 13.02 percent.

By solving this equation, we find that the presence of a critical period increases the probability of war initiation by only 3.04 percent:

$$\Delta_p = 0.269\ [.1302\ (1-.1302)] = .0304$$

Thus, while war initiation is more likely during critical periods than non-critical periods, this difference is far from significant. It is important to mention that this lack of significance may very well be a function of the specific rules and guidelines present in the simulations, instead of some sort of weakness in the foundations of power cycle theory. Wars are declared in the game (via a "Declaration of War" action form) after a period of negotiating and coalition building. This period eliminated any of the surprise associated with war initiation. In addition, attackers faced a disadvantage on the battlefield – one factor on "offense" was considered to be less powerful than a single factor dedicated to "defense".[22] Thus war initiation may have been overly subdued by the rules in place. Caveats aside, the data generated by the simulations offer far less support for Proposition 4 than they do for Proposition 3.

[22] This was meant to introduce Kenneth Boulding's notion of the Loss of Strength Gradient, as well as incorporate the diplomatic costs of aggression into the game.

Table 3: Critical Periods, War Participation, Initiation and Severity: Regression Analysis

	War Participation	War Initiation	War Severity[a]
Critical Period	1.086 (0.362)*** 2.962[b]	0.269 (0.495) 1.309	-76.537 (262.169)
Number of Borders	-0.112 (0.145) 0.894	0.010(0.194) 1.010	116.936 (111.813)
Regime Type	0.095 (0.488) 1.100	-0.355 (0.634) (0.701)	-296.132 (366.612)
Power Concentration	9.177 (4.750)* 9672.856	11.677 (5.592) 117795.401	6105.25 (3262.90)*
Country Rank	0.067 (0.101) 1.068	-0.080 (0.130) 0.923	-101.294 (78.382)
Constant	-3.365 (1.361)	-4.243 (1.687)	-233.624 (956.305)
N	192	192	57
Adjusted R-Square	0.048	0.031	0.062
Prob. > Chi Square	0.047	0.477	

[a] Because war severity is not coded as a dichotomous variable, this model is tested by using a standard linear regression with robust standard errors.
[b] This statistic represents the Odds Ratio generated by the logistic regression run.
* $p < .10$
** $p < .05$
*** $p < .01$

Proposition 5: Wars in Aetolia that occur during critical periods will be significantly more severe (defined by the amount of resources devoted) than wars that occur during remaining periods.

Proposition 6: Truly global wars will only occur when at least half of the states in Aetolia are simultaneously experiencing critical periods. It is at these times that system change is most radical, and instability is most pervasive.

For all wars that occur during the simulation, countries devote a certain number of factors to the conflict. The number of factors represents the overall strength of that country's commitment to the conflict – be it military, economic, social, or a combination of all three. Factors devoted to war cannot be used for any other policy actions that turn, and thus represent an abstract but practical opportunity cost of the war for that county. In other words, the more factors a country allocates to the war, the more "severe" it is for that country. Doran and Parsons (1980) along with much of the Correlates of War research, coded severity in terms of battle deaths, and excluded variables that measure material and intangible costs. Keeping in role the importance of factors for all aspects of the simulation, it seems like they captured the general notion of severity quite well.

To test Proposition 5, the mean severity of wars occurring during critical periods is compared to the mean severity of conflicts occurring at other times. Power cycle theory – particularly the early versions - suggests that severity should be significantly higher for wars occurring during critical periods. This is due to the emotional confusion, aggressiveness and perhaps even panic that occurred during critical

periods. Leaders (in this case game participants) are expected to be more willing to "go for broke" and sustain higher levels of loss in such situations. An Ordinary Least Squares regression model is used as an additional test for this hypothesis. Because war severity is in theory a continuous variable (not dichotomous like war participation or initiation), the OLS model is appropriate. The structure of the regression model is identical to that used to test Propositions 3 and 4, with the obvious substitution of war severity as the variable of interest.

In his discussion of the First World War, Doran argued that truly global wars are most likely to occur when several major powers all pass through critical periods in near proximity. Indeed, the statistical analysis of that period shows that between 1900 and 1915, seven of nine major powers pass through a critical period. When so many countries undergo the traumatic reversals in the rate or direction of the relative power growth, uncertainty is at a peak, and the system is ripe for aggressive, irrational behavior by all parties. Does this idea accurately depict the outbreak of highly severe war in the simulated international system of Aetolia? For each simulation, the most severe war (if any war at all) is recorded for the turn on which it occurs. The number of countries experiencing critical periods on that turn is also recorded. If the most severe wars tend to occur on turns during which many countries are experiencing the trauma of a critical period, this proposition will be supported.

Both the comparison of means test and the regression analysis indicate that critical periods do not lead to increased war severity during the simulations. In fact, mean severity of wars during critical periods (1008.29 factors) is actually lower than

severity of wars occurring at other times (841.38).[23] This negative relationship is not statistically significant when all the games are analyzed together, but data from the Fall semester does indicate a significant, inverse relationship between the existence of a critical period and war severity.

Even more than those results regarding the rates of war initiation, these findings related to war severity in the simulations should be interpreted with caution. Remember that, in analysis of the simulation, war severity is measured by the number of factors devoted to the conflict instead of the measure of battle deaths that was employed both by Doran and Parsons in 1980 and earlier in this dissertation. Thus, while this finding is surprising and certainly does not lend any additional support to the correlation between critical periods and severity, it is in reality an entirely new test that, by definition, does not explicitly contradict any existing aspect of the power cycle framework. While resource factors are indeed a good measure of commitment, there are a couple of important issues to consider:

- Factors, while important in all aspects of the game, are not an adequate translation of the human costs (battle deaths) normally used to measure war severity by the Correlates of War Project. The absence of a human element in my measurement of war severity may alter the decision making calculus of the leaders who make decisions about when to go to war. Perhaps resource factors in the simulation should be thought of as more analogous to the economic expenditure of a

[23] Results from the combined simulations are confirmed by the by-semester analysis. In the Spring of 2003, war severity during critical periods (566.83) was also lower than severity during remaining turns (894.95). For the Fall of 2003, severity during non-critical periods was 1214.36, while severity during critical periods was 1076.71

major power at war. If this is the case, the existence of an inverse relationship between factor commitment and critical periods is easier to accept, as economic commitment and severity (in battle-deaths) are often characterized by an inverse relationship themselves. Take, for example, the high cost but relatively low severity of both the 1991 and 2003 Persian Gulf Wars.

- Measuring severity by the raw number of factors a country devotes to war may also be misleading. Because large variation exists in the general factor allocation of many countries in Aetolia, a small country may only devote 200 factors to war, but still consider it quite severe because its total factor allocation is only 300 on that turn. That same 200 factor devotion represents a low level of severity for a large country with an overall allocation in the thousands. A better measure takes into account "relative severity" for wars based on country size. This is done by defining severity instead as the percentage of total factor allocation that a country devotes to that war. Interestingly, such an analysis shows that measuring war severity in this manner does not change the nature of the results presented above.

Clearly, there does not seem to any significant relationship between critical periods and war severity – *if we accept that the commitment of factors to a war is an accurate measure of severity*. Table 4 suggests that severe wars are somewhat more likely to occur when several states in the system are passing through a critical period simultaneously, but no solid conclusions can be drawn based on the information available. In Game 1, the most severe war occured on Turn 6, when 4 of 8 states in Aetolia are passing through a critical period. All four "critical" states are involved in

the war, although only one is an initiator. This is in line with Proposition 6, which argues that, for truly global wars to take place, system instability will have to be extremely high. This kind of instability should only emerge if at least half of the major powers are experiencing a critical period. Game 2 also sees its most severe war on Turn 6, with half of the states in Aetolia in a critical period. Game 3 has its most severe war during Turn 4. In this instance, 3 out of 7 states are "critical," and 2 of those 3 initiate the global conflict. Thus, data from Games 1 through 3 mildly supports Proposition 6. Game 4, however, offers no such support. The most severe war again occurs on Turn 6.[24] At this point in the game, absolutely no states are experiencing a critical period. In sum, there might be some relationship between global instability (as represented by several simultaneous critical periods for several countries) and the occurrence of the most severe wars, but critical periods are in no way a sufficient condition for massive conflict in Aetolia. War severity in Aetolia, as a result, is not shown to be dependent on critical periods that occur during the International Politics Simulation.

[24] It is important to note the possibility that the likelihood of highly "severe" wars on the sixth and final turn of the simulation is due to the "end of game effect", in which defection is seen as less costly. Although students were not made aware of the exact number of turns that would comprise the simulation, they did know the rough timeline of the game due to information presented in the course syllabus.

Table 4: Tracking Critical Periods and the Most Severe Wars

	Factors	Critical Period?		Factors	Critical Period?
Game 1			Game 2		
Turn 6:			Turn 6:		
Attacking States	6987		Attacking States	3000	
Arcadia	4087	Yes	Caria	800	Yes
Epirus	400	No	Messina	2200	No
Thrace	2500	No			
			Defending States	2446	
Defending States	5537		Arcadia	700	Yes
Caria	1797	Yes	Chalcidice	30	No
Chalcidice	700	No	Epirus	400	Yes
Euboea	1500	Yes	Euboea	973	Yes
Messina	1675	No	Thessaly	343	No
Thessaly	75	Yes			
Total:	**12524**	**4/8**	Total:	**5446**	**4/7**
Game 3			Game 4		
Turn 4:			Turn 6:		
Attacking States	2415		Attacking States	7300	
Arcadia	1043	No	Caria	300	No
Caria	125	No	Chalcidice	1500	No
Chalcidice	300	No	Epirus	2500	No
Thessaly	283	Yes	Messina	1800	No
Thrace	664	Yes	Thessaly	300	No
			Thrace	900	No
Defending States	2910				
Epirus	1000	Yes	Defending States	3600	
Euboea	1910	No	Arcadia	100	No
			Euboea	3500	No
Total:	**5325**	**3/7**	Total:	**10900**	**0/8**

Using Qualitative Evidence to Clarify the Connection Between Critical Periods and Interstate Conflict

At any of the four critical periods along a state's relative capability cycle, leaders are forced to deal with an entirely new reality in terms of foreign policy doctrines, projections, objectives and threats. At the first inflection point, for example, leaders realize that the exponential rate growth they have been enjoying for some time is now replaced with a slower and slower increase in relative capability share. Foreign policy achievements that once seemed inevitable through simple inertia now appear possible only through quick and drastic efforts to act "before matters get worse." As a result, it seems easy to imagine a situation where a country at this first inflection point takes and aggressive stance in foreign policy arenas such as territorial disputes, trade agreements and diplomatic as well as military crises. The decision making logic would be to resolve all potential conflicts, and achieve as much as possible before one's country loses its power share in relation to other states in the system. Although different logic is pertinent at different critical points, radical change in foreign policy is constant. Drastic policies can obviously emerge at any point in time – power cycle theory, however, suggests that radical policy actions are more likely to occur during critical periods. Radical and potentially aggressive foreign policy, in turn, serves as fertile ground for interstate conflict. In the case of the Moroccan Crisis, King Edward VII of Britain (second inflection point) and Kaiser Wilhelm II of Germany (high turning point) experienced unique emotional traumas due to the disparate dynamics of

the critical points they were experiencing, but both dynamics increased the likelihood of conflict between the two powers.

In the preceding large-N analysis, the statistical connection between critical periods and interstate conflict was established. Earlier in this chapter, Propositions 1 through 6 expand upon that connection. At this point I shift gears in my analysis of the International Politics Simulation, and examine qualitative data that will compliment the discussion found in the case study analysis. Although no specific propositions hinge on the following evidence, the qualitative sections of this project are equally, if not more important than the statistical analysis – they represent a significant portion of the contribution I hope to make to the development of the power cycle research program. One of the primary purposes of this project is to outline the specific effect of critical periods on the decision making calculus of leaders who ultimately decide whether war offers a viable policy option. To do so, it becomes necessary to compare the perceptions, projections and emotions of individual leaders during critical and non-critical periods. It is possible to conduct such an analysis of the International Politics Simulation, as written student reports, classroom notes and thousands of emails allow for a systematic inquiry into the qualitative differences between critical and non-critical periods.[25] Evidence is

[25] While the preceding propositions can be judged via standard measures of statistical significance, or at least a clear-cut threshold for acceptance, the following four propositions will be tested by qualitative data in the form of written student reports, classroom notes and email communication during the simulation. This does not mean that this qualitative information cannot be analyzed systematically – it is actually quite easy to organize all communication and notes into separate groups that represent critical and non-critical periods. These two groups of documents (well over one thousand pages) are then read and sorted by their relevance to hypotheses about participants' calculations, attitudes and perceptions regarding projected power, foreign policy objectives, threats and other matters that relate to the propositions at hand. That said, this data is not run through software programs

generated in a variety of formats. Classroom notes and email communication between participants took place continuously throughout the two-week period of the game. At the end of each turn, however, the "Simulation Report" worksheet in Appendix 8 was handed to students. The worksheet was mandatory for the students to complete, and served as a constant and systematic method of monitoring student perspectives regarding power projections, foreign policy objectives, feelings of insecurity and threat. Upon looking at this information, it became clear that participants in the game were much more likely to express confusion, make radical adjustments and exaggerate their insecurity when their fictitious state was experiencing a critical period than when it was not. Significant adjustments took place in areas such as projected capability changes, stated foreign policy objectives, feelings of insecurity and overall emotional disposition. Although the focus of this analysis is slightly different than that of the case study, the goal is similar – to flesh out the impact of critical points on the individual decision-makers in question. That said, the final area of analysis presented here – feelings of insecurity and overall emotional disposition – correlates closely with the third and most important kind of findings outlined in the preceding chapter. Furthermore, I will, where possible throughout the remainder of

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such as Nudist or Lexis-Nexis that would allow for textual analysis, word counts or other techniques commonly employed to analyze similar kinds of data. This choice is made for a couple of reasons. First, the irregularities in student reporting (unequal care taken in filling out reports, differences in levels of email communication, etc.) mean that some students were able to unwittingly "produce" more data than others. Short of weighting responses by some sort of student-specific coefficient, a systematic bias could easily be introduced into an analysis that aspires to complete methodological rigor. Second, this qualitative data is used to add clarity to a statistical relationship that – pending support of the preceding quantitative propositions – has already been established. Excerpts from diplomatic communication and student reports are vital for building the bridge between the structural presence of critical periods and the outbreak of war, but they are not needed in order to solidify the statistical connection. That has been done both earlier in this, and in the preceding chapter.

this chapter, attempt to draw connections between the behavior of simulation participants and that of British, French and German leaders during the Moroccan Crisis.

Critical Periods and Projection Reversals: During a critical period, simulation participants were much more likely to reverse their beliefs about their direction or rate of capability change.

The foundation of power cycle theory is the notion that critical periods represent a dramatic reversal in either the rate or direction of relative power growth in the international system. For leaders, this reversal results in emotional symptoms such panic, aggressiveness or total confusion that are generated by the sudden realization that all preconceptions and projections about their country's relative capability share are entirely incorrect. To adjust to the quickly "shifting tides of history," far-reaching and severe foreign policy adjustments need to be made in a short period of time. This idea is particularly applicable to the case of Germany in the years surrounding the Moroccan Crisis. Leaders such as Wilhelm and Bulow had grown accustomed to rosier and rosier projections about expanded German capability share in Europe – so much so that there was a widespread belief that in ten or twenty years, Germany would undoubtedly be the "Master of Europe." Right around 1904, however, Germany suffered an abrupt reversal in the direction of relative capability change that is associated with passage through the high turning point on the relative capability cycle. All at once, German projections were focused not on an inevitable overtaking

of the British Empire, but an increasingly rapid loss of power in comparison to their Russian rival to the east. This sudden change meant that the window of opportunity for German expansion was indeed closing, and that the time to act was short. This was the decision-making calculus behind Wilhelm's landing at Tangier, which challenged the Anglo-French Entente in Morocco.

Similar tendencies were uncovered by analysis of data from the simulation. Perhaps the most detectable reaction of simulation participants to critical periods was that of shock and urgent attention to the fact that their power position in the game was in a state of uncertainty. During critical periods, students' communication made frequent reference to their changing position in Aetolia. At the high turning point, leaders (like their historical German counterparts) suddenly saw their country as a declining power instead of one that was destined for hegemony on the continent. As determined in the statistical analysis, insight from prospect theory helps us understand why position in the domain of loss – as is the case at the high turning point – engenders greater risk propensity among decision makers. In other circumstances, leaders of previously stagnant or declining countries express new hope for a sudden change to relative capability expansion. Evidence of these feelings appeared in emails and classroom notes. Moreover, questions one through three in the "Projections" section of the Simulation Reports were specifically designed to generate responses in this subject area. In the following discussion, we see responses that indicatd sudden changes in participant perceptions regarding their country as a rising or declining power, about their projected factor allocation for the rest of the

games and their eventual rank in the power hierarchy on Aetolia. There was consistency in projections during most turns, interspersed with significant reversals in projections during critical periods. Anxiety about these reversals was also present in responses during critical periods. The following examples are useful for illustrating the argument made above.

Non-Critical Periods: In Simulation Game Number 3 (S3), the country of Caria did not experience a critical period, and thus serves as a control group. Responses are what we would expect from a country that is not dealing with abrupt change associated with critical periods. Student projections about their relative capability trajectory remained consistent throughout the game. Because this game saw Caria decline in relative capability share on every turn, projections and attitudes were understandably modest:

Student C313 (Caria, Game 3, Student 1, Turn 3): *"We have only lost factors since the game started so it seems that our country, Caria, is a power in decline. I think our country will be ranked at the same place after the next turn and probably the same at the end of the game unless we do some really tricky maneuvering."*

Student C323: *"Based on our factor allocations, I think that our country is a declining power. On the next round of factor allocations, we will probably receive around 800 factors if things stay the way they have. At the last allocation, we will probably receive approximately 200 to 300 factors. These numbers are based on the amount of factors that we have been losing each turn."*

Student C335: *"Caria has obviously become a declining power. As a country, any future decisions we make will have to be much more strategically planned than they have been thus far."*

While an ever declining share of power in Aetolia made Caria a difficult country to play in this game, projections about future capability share were quite easy. Every

student understood that Caria was a declining power, and they felt that this would remain true for the duration of the game. Thus, projections were for a lower and lower factor allocation. In addition, those projections were remarkably accurate: Student C323 projected an allocation of 200 to 300 factors for Caria on the final turn. Their projection was prophetic – Caria tallied a factor allocation of 218 on the last turn of the game! Clearly students in the game measured power by their factor allocation, and consequently paid close attention to changes in that allocation. While they were not happy with Caria's eroding position in Aetolia, these students were comfortable with the predictable pattern change that they were experiencing. In some ways, there was an indirect correlation between the dynamics driving Caria's behavior and those which determined French behavior during the Moroccan Crisis. Like Caria, France was a declining power in 1905. Unlike Britain, France had not entered its second inflection point, so projections were for continued decline. These projections were bolstered by colonial setbacks such as that at Fashoda, and long-held continental frustrations such as the loss of Alsace-Lorraine. While this led to pessimism in France, there was also less uncertainty and turmoil that are associated with the passage through a critical period. Thus, when Wilhelm issued his challenge over Morocco, the French reaction was (though firm) quite measured and reserved. Indeed, the landing at Tangier may not have triggered an international crisis had it not been for the emotional and confrontational reaction of the British, who were buoyed by their reduced rate of decline which was signaled by passage through the second inflection point on their relative capability cycle.

Projections for Euboea, which also did not experience a critical period in this game, were equally consistent, though much more optimistic:

Student E313: *"I firmly believe Euboea is a power on the rise. The main reason is that we have been steadily increasing in factor allocations...Once a nation becomes as powerful as us, it is easier to stay on top."*

Student E314: *Our country is still a rising power. This is because our factor allocation has increased more with each turn. I think we'll have 5500 points on the next turn and 6600 to end the game."* (As of this writing, Euboea had 3,210 factors, up from 2,378 the previous turn. On the following turn, they would receive an allocation of 4,654 factors)

Student E314: *"My country is most definitely a country on the rise. Our last point increase was unprecedented. I think next turn we'll get up around 9,000."*

On the next (and final) turn, Euboea received 7,214 factors. As this student detected, Euboea was a country in the very first part of its growth phase. It had not hit its first inflection point yet, so relative capability shares were increasing exponentially each turn. Surprisingly, students picked up on the idea of exponential growth. Projections were based on an "ever-rosier" future. This underscores the vulnerability of leaders to abrupt reversals in previous trends – even if it is a change from exponential to gradual growth as experienced at the first inflection point.

Critical Periods: The consistent projections of Caria and Euboea are in stark contrast to the rapidly changing capability projections made by leaders of Epirus in the same game. Epirus passed through the first inflection point on its relative capability cycle on the fourth game turn. The first quote indicates overwhelming optimism at the same kind of exponential factor growth that Euboea was experiencing:

Student EP315: *"Our country is a quickly rising power. This is because we have had an exponential growth in factor allocations... I think our factor allocation will continually double if not triple. So that our next allocation will be near 4,800 factors and our last distribution will be 9,600."*

Just as was the case with Euboea, this student was sensitive to not only the direction but also the rate of their relative power growth. Optimism is engendered by positive growth, but actual projections took into account the specific nature of this growth (exponential).[26] In 1905, Russia was at this point in its relative capability cycle, and when rival powers in Europe (namely Germany) projected Russian growth one or two decades into the future, the idea of exponential expansion became a source for great anxiety and ultimately forced challenges to the international status quo. When, however, Epirus passed through the first inflection point on the next turn, and its rate of capability expansion suddenly slowed, the student changed their tune:

Student EP314: *"Still our country is a rising power. If we are able to keep the pace we are going and encounter no threatening occurrences, I think our factor allocation will continually increase, though maybe flattening towards the end turns. So with our next allocation near 4,800 factors, the last distribution will be about the same (ed. 4,800)."*

For this leader, there was clear awareness of an inversion in the rate of power growth their country experiences as it passes through a critical period. Inversions in the direction of capability change was awarded even more attention by a member of Arcadia, which passed through the high turning point on turn 2, signaling a change from relative power expansion to contraction:

Student A312: *"Arcadia, I believe, is the powerhouse of the region, economically and militarily. It somewhat resembles the modern day United States by means of its*

[26] Epirus had a factor allocation of just 464 to start the game, but saw that number increase 140% to 650 for turn 2, 185% to 1,202 on turn 3 and 200% to 2,404 on turn 4. For turns 5 and 6, Epirus was still a growing country, but at a reduced rate of 140% and 130%, respectively.

strength. At the end of the game, I believe we will be ranked #1 in terms of power – no less."

Arcadia started each simulation with the highest relative capability share of all eight countries in Aetolia. This student's feelings were warranted given their state's paramount position in the game. After experiencing a reduction in relative power, however, this same student quickly reversed field in his report just one turn later:

Student A313: *"Right now Arcadia is a power that seems to be declining. Our factor allocations have dropped, and unless we start getting some objectives accomplished we are going to continue to drop and we won't rank anything worth bragging about."*

In the space of a single turn, this participant went from proclaiming Arcadia as the most powerful state in Aetolia (and it actually was) to lamenting the likelihood of substantial decline. Keep in mind this reversal was caused by **a single data point**. The importance of relative capability projections, however, made this data point of utmost importance in determining a leader's outlook on the future of their country. Again, similarities can be found be returning to the Moroccan Crisis, and Kaiser Wilhelm's urgent need to challenge the existing status quo upon realizing that Germany was no longer a rising power.

Based on the evidence sampled in the preceding section, it is easier to understand the effect that critical periods can have on projections about a country's future share of relative capability in the system. Students clearly based their calculations on current trends in power growth. For those who did not experience a critical period, these calculations were astoundingly accurate. For those who did experience a critical period, past projections were quickly proven inaccurate, and leaders struggled to adapt to an entirely new foreign policy reality. Part of this struggle was a

reassessment of foreign policy objectives based on new ideas of what was desirable as well as what was feasible. This reshuffling of foreign policy objectives was done as quickly as possible, as leaders attempted to adjust to the shifting tides of history. In general, these abrupt policy changes can often lead to conflict with other countries, possibly due to encroachment into new policy arenas, or withdrawal from others. One can recall this sort of behavior being exhibited by the British at the turn of the century, when passage through the second inflection point coincided with a rather abrupt decision to end a period of isolation and engage in the continental alliance system. While continued decline mandated a strong ally that would help Britain protect its international status, the reduced rate of decline indicated by the second inflection point was enough to convince leaders in London that decline was not inevitable. In relation to the Moroccan Crisis of 1905, this mindset made the British much less willing to accommodate the German challenge than they would have been if they were less confident in their long term ability to hold off German attempts to expand at their expense. The link between critical periods and foreign policy reversals is the first in a longer causal chain with critical periods on one end and interstate conflict on the other.

Critical Periods and Reshuffled Objectives: Critical periods will also result in a reshuffling of foreign policy objectives that is much more severe than what normally occurs over the course of time.

The changes in power projections described above are allegedly accompanied by a reshuffling of perceptions regarding foreign policy objectives of the country in question. Just like the years surrounding the Moroccan Crisis were characterized by radical shifts in alliance patterns (the emergence of the Entente Cordiale being most notable), grand strategy (the end of British isolation), and immediate policy (Wilhelm's decision to land at Tangier), the shifting tides of history that drastically altered projections of future rank and role in Aetolia necessitated an equally drastic reshaping of opinions regarding what objectives were desirable and feasible for a country to achieve for the remainder of the game. For example, leaders of countries at the first inflection and high points suddenly reduced the number of objectives they felt their country could achieve by the end of the game at the same time they expressed urgency about achieving their most important goals before their position of power in the game began to erode. For Germany in 1905, this meant less attention to colonial expansion in far-flung areas, but a greater urgency to confront its rivals in more proximate locations (Morocco), as well as policies geared toward addressing the most fundamental threats to national security such as the inferiority of the *Kriegsmarine* and the emergence of the Entente Cordiale.

The German case adequately represents the potential for conflicting, traumatic emotions (in this case, caution and aggressiveness) to be simultaneously generated by a critical period. In the simulation, participants exhibited much more objective "reshuffling" during critical periods than during remaining turns. Questions in the "Objectives" section of the Report Form (Appendix 8) allowed for such a comparison

to occur. As mentioned above, drastic changes are likely to breed conflict in the international system, as aggressive expansion of objectives will step on the toes of other countries, while retrenchment may very well mean that others are left "holding the ball" in various alliances or economic agreements.

Non-Critical Periods: During non-critical periods, the vast majority of responses regarding country objectives were very similar. Teams formulated a strategy for achieving their objectives early in the game, and as long as those objectives were still desirable and feasible based on consistent power projections, very little real change occurred. Caria once again provides a good example of a country in predictable, "non-critical" decline, but still comfortable with its modest role in the game, and its strategy for success:

Student C313: *"Our goals have not changed from the last turn. Our goals for the game are to simply achieve as much as possible without getting into any military conflicts."*

And on the following turn:

Student C314: *"Our goals for the game as a whole are to accomplish as many objectives as possible without ever going to war. We believe there is a way for everyone to achieve their goals without fighting."*

Again drawing on the French experience provides a useful parallel: resigned to the inability to compete in East Africa with the British, French leaders such as Délcassé "gave up" on the attempt to overcome British superiority and instead focused on solidifying what was most feasible and important to the vital interests of France. Thus, concessions were made in places such as Egypt, Siam and

Newfoundland in order to improve prospects closer to home (with control of Morocco).

As mentioned, Euboea also did not experience a critical period in the game, and despite its rapid relative capability growth, this country also stuck to its original set of foreign policy objectives. While their ascent to the top of Aetolia (in terms of power) did engender confidence for this team member when it came to general interactions with other states, their list of foreign policy objectives was amazingly consistent. At the beginning of the game (turn 2) they centered their attention on the territorial conquest of a nearby island:

Student E352: *"Our goals for the upcoming turn are essentially the same as the last – to acquire Magnesia (ed. Magnesia is an island held by Thessaly)"*

This goal remained their focus, even after seeing Euboea's capability share double over the next three turns:

Student E355: *"Our primary goal for this turn is the same goal we've had since the beginning of the game – the acquisition of Magnesia."*

Critical Periods: Two countries that did experience critical periods – Arcadia and Messina – generated evidence that stands in stark contrast to the consistent foreign policy objectives maintained by Caria and Euboea. A participant from Arcadia began the game with broad objectives that reflected their optimism and powerful position in the game. This attitude coincides nicely with the emergence of the German policy of *Weltpolitik* that sprung from the optimistic view that over time, Germany would be increasingly able to assert itself on the world stage:

Student A321: *"Our goal is to attempt to be a peaceful nation and promote democracy across all other nations. We anticipate that all of our objectives will be met."*

On the second turn of the game, the student still saw Arcadia as a strong, growing power, with a number of ambitious diplomatic, economic and territorial objectives:

Student A322: *"We have not achieved any objectives yet. We are avidly working toward our nation's goals. We have managed to build several alliances, and our goals for the next turn are to erect a monument, start the World Commerce Organization. We would also like to focus on preserving our control of the Dolopes Archipelago."*

After passing through a high turning point and seeing Arcadia begin to slip in terms of relative capability, frustration mounted and quickly turned into desperation. The lofty goals the student identified only one turn earlier had all been abandoned and replaced with a simple desire to remain in the game (in the case of Germany, objectives changed in nature from grand designs of world hegemony to survival strategies for coping with the inevitable rise of Russia and growing diplomatic isolation).

Student A323: *"We have still not achieved any of our objectives. We would like to achieve some by the end of the game, but I think that on the last turn our country will be in shambles and we will have less than 100 factors. No objectives will be obtained – our goals have definitely changed. Our goal now is to stay alive as a nation.*

The immediate abandonment of all objectives is certainly notable, but how exactly can that prove fertile ground for interstate conflict? Power cycle theory is based on the tacit notion that stability is a most vital component of peace in the system. Radical change – whether it be a country's expansion or retrenchment – throws any system off balance. This imbalance leads to the overreaction, exploitation, panic or fear that is necessary for conflict. In this specific case, Arcadia's withdrawal from a number of

alliances left the door open for a growing Euboea to exploit a sudden power vacuum. With no organized coalition to oppose Euboean expansion, it seized the opportunity and declared war on a number of smaller states. Messina, a strong country in slow decline, still maintained a positive outlook on the game. By turn four, this member of Messina conveyed a modestly ambitious agenda:

Student M354: *"We have achieved two objectives thus far, each worth five points. We will continue with the goal of keeping Sporades open to the southern countries. By the end of the game, I believe that our country will have achieved all but one objective."*

On the following turn, Messina passed through the critical low turning point, and began the "rebirth" phase of its relative capability cycle. After several turns of power erosion, the future suddenly looked infinitely more promising in terms of factor allocations. Perhaps this student viewed these extra factors as a means toward individual glory, as their game objectives took a unique turn away from those previously stated:

Student M355: *"My goal for the upcoming turn is to get a leadership change in our country. I believe that by doing this, I will be able to have a new queen devote all factors to industry, thus winning me the individual prize as top Economic Advisor. My goals were team oriented, but my views have changed dramatically."*

Could it be that critical periods can also alter the "domestic" objectives of the leadership within an affected country? While a number of factors could also account for the changing goals of this participant, it does seem plausible that totally new calculations about where their country was headed might bring about totally new ideas about how to take personal advantage of this new growth. In this case, there was internal unrest in Messina at the end of the game, and this unrest was also a

contributing factor to the Euboean decision to attack Messina and other vulnerable countries.

Evidence from this section suggests that critical periods do indeed lead to a sudden and radical reshuffling of foreign policy objectives. Distinct from the kind of gradual and measured adaptation that defines a conscious rectification of "role surplus" or "role deficit", these sudden changes contribute to instability in the international system. This instability, be it the result of new aggressive policies, a quick decision to withdraw from important international commitments, or even domestic rebellion – is ripe ground for interstate conflict.

Critical Periods and Insecurity: General feelings of insecurity and perceived threat will rise during critical periods.

Countries experiencing critical periods can enact foreign policies that – in one way or another – threaten other states in the international system. At the same time, these countries are also more likely to feel threatened themselves. When projections about future power and role in the international system suddenly and dramatically reverse and foreign policy objectives are altered to meet a new reality, uncertainty is rampant for leaders experiencing such change. This uncertainty encompasses general feelings of insecurity, as well as specific issue-areas such as alliance portfolios and threats from other powers. This is true regardless of the type of critical period being experienced. We see examples of this in the unstable emotional state of both Kaiser Wilhelm II and King Edward VII during the Moroccan Crisis. Although each was

leader was experiencing a different kind of critical point, they both exhibited increased irrationality, suspicion, anxiety and over-confidence in the years surrounding the crisis. Whether feelings of insecurity are generated by changing trajectories toward power erosion or expansion, the dramatic nature of the change itself will make talk of insecurity more frequent during critical periods. Evidence also points toward changing notions of friend and enemy as well as a growing list of "threatening countries" during critical periods. At the same time, the case study analysis of Edward and Wilhelm supported the argument made in Chapter II in relation to the varying degrees of risk propensity associated with different critical points. Both Edward and Wilhelm displayed more emotional trauma than their French counterpart Theophile Délcassé. Wilhelm was most unstable, however, due to the fact that he was experiencing the high turning point, which heightened his risk propensity by placing him firmly in the domain of loss.

Non-Critical Periods: While variations in security may occur based on individual differences, the general trend in participant responses was toward general feelings of security, punctuated by an increased perception of threat during critical periods. Again, while certain issues still concern leaders during non-critical periods, it seems as though true existential crises are only likely to arise when a country is embroiled in the high level of instability and uncertainty associated with severe alterations in their relative power cycle. Chalcidice was a small but growing country that did not experience a critical period in the game. The student respondent did not indicate any

meaningful insecurity. Interestingly, they actually seemed to associate potential for insecurity with higher levels of relative capability. This implies that their confidence in Chalcidice's survival was so great that their personal definition of insecurity was not at all related to weakness and elimination of their state as a viable player in the game. On the first turn of the game, they write:

Student CH341: *"We are secure for sure. We have peace agreements with Thrace and Arcadia, we are not a target for any country to take over. As of now, we have good standing relationships.*

And on the fifth turn:

Student CH345: *"Our position is fairly secure. We are not at the mercy of another country, nor do we have a lot of power to throw around. We do have more power than last time and rank higher on the scale of most powerful, so things could change in the near future."*

Similarly, this respondent from Caria did not even recognize the potential for foreign aggression against their country. Caria – as mentioned before – was a declining country, but one that did not experience any sort of critical period:

Student C335: *"Caria does not have any absolute enemies or allies... The biggest threat to Caria's success is Caria itself...I feel that Caria is open to peacefully working with any other country, no matter what conditions have occurred in the past."*

Critical Periods: Two respondents from Arcadia provided excerpts that illustrate the positive relationship between critical periods and insecurity quite well. Feelings of confidence and strength dominated responses on the second turn, before Arcadia's impending decline was revealed. Even the motivation of competing teams was seen as positive during this "pre-critical" period:

Student A312: *"With the allocations we have received thus far in the game, our position is very strong. If allocations persist like that of what we have received so far, we are at the mercy of no one, and have a lot of power to influence what is going on with all states."*

Student A322: *"Our position is fair as of now. Most nations want to work with us on some level."*

As soon as the trauma of a critical period set in, however, attitudes quickly changed. Both students not only viewed their new power trajectory as a grave threat to their overall security in the game, but they also had a sudden and total change of heart regarding the intention of other states in the system. All countries were seen as threatening, and not to be trusted:

Student A313: *"We are losing the security we once thought we had. Other countries are starting to rise and we are becoming very suspicious of them, especially after hearing some intelligence. We are not so much at the mercy of other countries, but at the same time we have to be cautious, because they will do what is in their best interest, not ours. I think all the countries that border us are a threat to us right now.*

Student A323: *"We are not secure at all. We thought we had allies, but now we can't trust anyone. All of the countries pose a threat to us now. Everyone is aggressive. They pretend to be nice, but can't be trusted."*

In many ways, the preceding student reactions mirror those of Kaiser Wilhelm and Chancellor Bulow as they experienced Germany's passage through a high turning point during the Moroccan Crisis. Whereas they had previously felt confident of Germany's eventual "Mastery of Europe", these leaders were now faced with the sudden realization that their power share in the international system was actually in decline. Confidence was replaced by a sense of urgency to secure Germany's place in the sun while it was still feasible. Within this broad sense of insecurity, Wilhelm's

statements and behavior during at that time constantly referred to a paranoia about diplomatic encirclement and elaborate conspiracies on among rival leaders – in particular his own uncle, King Edward of Britain. As a whole, the qualitative evidence presented in this section is meant to add substance to the propositions forwarded by Propositions 1 through 6. Excerpts from actual student reports serve to strengthen the statistical correlation that was found earlier in this chapter. While this type of analysis is inherently subjective, it is a successful first step in building the bridge between correlation and causality that is the main priority of this project. Three main conclusions can be drawn from the qualitative evidence:

1. Critical periods force leaders to abandon old projections about relative capability trends and hastily make new calculations about the pattern of growth awaiting their country in the future.

2. Radical changes in foreign policy objectives almost always accompany reversals in capability projections. Abrupt changes in foreign policy are often threatening to other states and are often a source of instability in the international system.

3. While countries experiencing critical periods are usually more threatening to the rest of the system, they themselves also suffer a sudden, heightened sense of insecurity. This feeling is translated into mistrust, aggression, panic and general fear.

Concluding Remarks

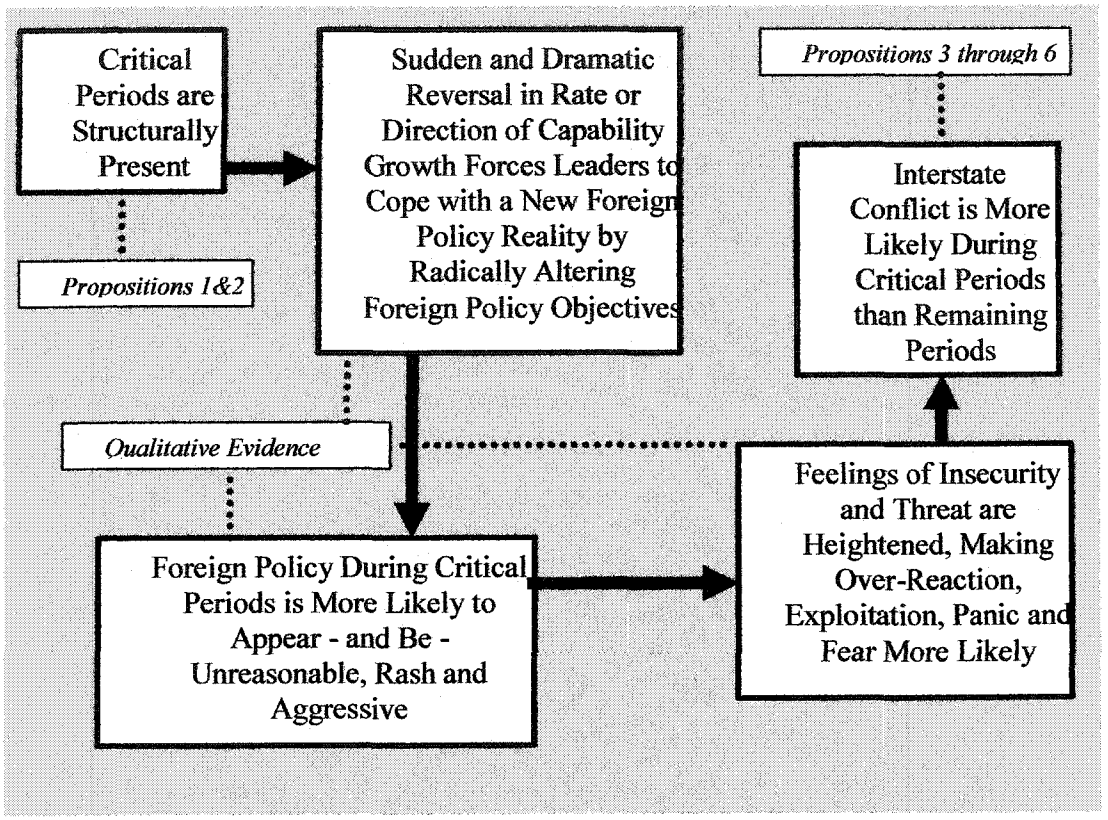
Results from analysis of the International Politics Simulation support the general tenets of power cycle theory in several ways. First, virtual states on the continent of Aetolia are shown to exhibit patterns of relative capability growth and decline that closely resemble those of "real" states. Specifically, states in the simulation pass through at least a portion of a general cycle that includes phases of power growth, maturation, decline and rebirth. This kind of relative capability cycle is best modeled by the kind of logistic function first developed by Doran and Parsons in their 1980 article. For 13 out of the 16 countries analyzed, the logistic function is, "pound for pound" a more efficient model of the raw relative capability data.

Once relative capability data is modeled into a cycle, existing critical periods, if any, can be defined for each state. This is done, and then the conflict behavior of all countries is compared during critical and non-critical periods. Evidence suggests that war participation in Aetolia is significantly more likely during critical periods than the remaining times. Comparative frequencies of war initiation are less distinct, but critical periods are still associated with a higher rate of war initiation than are non-critical periods. The relationship between critical periods and war severity is not found to be significant, or even consistently positive. This result, however, may be more a function of the rules of the simulation and the manner in which severity is defined than it is a result of some inherent weakness in the fundamentals of power cycle theory.

Qualitative evidence from this chapter clarifies the substantive connection between critical periods and the decision making calculus that makes leaders perceive war participation or initiation a favorable policy option. Written student reports and email communication is examined in order to discern whether participants have great difficulty in responding to the challenges of critical periods. In this way, behavior in the International Politics Simulation very much mirrors the behavior exhibited by British, French and German officials during the Moroccan Crisis in the early 20th century. Like the British, students representing declining powers like Arcadia fought to protect the international status and prestige that they were used to, even if their current share of relative capability did not warrant the maintenance of such a predominant role in Aetolia. Growing powers such as Euboea and Epirus often resorted to aggressive policies in an effort to address what they perceived as a role deficit for their country. Most importantly, simulation participants reacted just like "real world" leaders when they were forced to make significant adjustments in areas such as projected capability changes and stated foreign policy objectives. Attempts to make adjustments frequently resulted in feelings of insecurity and general heightened sense of threat. The presence of these symptoms during critical periods added to uncertainty and instability during those times, and increased the potential for increased conflict behavior. While the case study analysis in Chapter 2 showcased the power cycle emphasis on the importance of power shifts in a multilateral context and the tension generated by power-role gaps, this chapter highlighted the emotional and cognitive impact of critical points on governmental leaders. Together, qualitative

evidence from the case study and simulations succeed in fleshing out the substantive relationship between structural change and conflict at the systemic, state and individual levels of analysis. This substantive relationship is depicted in Figure 2.

Figure 2: Visualizing the Relationship between Critical Periods and Interstate Conflict



As the third leg in the methodological triangle that is used to address the relationship between structural change, foreign policy and war in the international system, this analysis of the International Politics Simulation was valuable not only for the actual propositions that were tested, but also because it bolstered the findings from the preceding statistical analysis and case study of the Moroccan Crisis. On one hand, quantitative tests in this section were used to solidify and confirm the results found in the real world data. Perhaps more important, however, this chapter introduced qualitative evidence as a way of clarifying the detailed and complex connection between critical periods and the decision making process that leads to war.

The analyses presented in this chapter do not exhaust the possibilities for the International Politics Simulation in relation to a further exploration of the power cycle framework. Additional work can be done in a number of areas. The unique impact of different critical points in the simulation should be addressed in order to test the interaction of power cycle theory and prospect theory as was featured in the statistical analysis. Similarly, more distinct regime types need to be incorporated into the games in order to test the relationship between governmental structure and foreign policy during both critical and non-critical periods. Third, the simulations seem like fertile ground for developing a more explicit method for defining and measuring both declaratory and ascribed role in the international system. In summary, the research design of this dissertation needs to be considered holistically. While the International Politics Simulation has its limitations, it is only one part of the general strategy of "triangulation" that I employed. Conclusions drawn from the simulation should be

cross-referenced with those from the preceding case study and statistical analyses. Neither of these methods commonly suffers from problems of external validity to the same extent as experimental research. In turn, the simulation allows for experimental control and data access that is much more difficult in large-N or historical studies. Each of the three methodologies employed in this dissertation makes a unique contribution to the study of power cycle theory while simultaneously complementing the weaknesses of the other two.

CHAPTER V

SUMMARY FINDINGS, POLICY PRESCRIPTIONS AND REMAINING CHALLNGES FOR THE POWER CYCLE THEORY

What important questions remain unanswered in relation to the connection between structural change, foreign policy and war? Is it possible to develop effective prescriptions for international stability by correcting power-role gaps before they combine with critical points in a recipe for interstate conflict? In this final chapter, I focus on the effective management of role surplus and deficit as a crucial component of systemic stability. In this discussion, I consciously depart from the previous analyses in two key ways: First, I focus almost entirely on the relationship between international role and interstate conflict, which represents a shift from the emphasis on statistical correlation or emotional trauma found in Chapters II through IV. Second, I move away from an assessment of the global (historical or simulated) major power system, and attend to the current and future dynamics within the East Asian regional sub-system. Thus, the major powers, capability shares and power shifts that I discuss in this chapter are very much distinct from those mentioned in earlier ones. [1] The decision to address these issues in the concluding chapter reflects the relative dearth of attention that international role and regional sub-systems received in

[1] Thus, the existing power cycles and critical points from Chapters Two through Four do not apply to specific dynamics within the East Asian system. As Kumar (2003) and Parasiliti (2003) have shown, the principles of power cycle theory apply just as well to these smaller systems as they do to the global major power system.

previous sections. Because both issues are at the forefront of new research in the power cycle research program, I feel that is it particularly fitting to address them in the final chapter of this dissertation.

Before I attend to these concerns, however, I first summarize the main findings of this project. Only later will I transform these findings into a set of basic policy strategies aimed at preserving peace in 21st century Asia – where rapid changes in relative capability shares are generating a set of increasing power-role gaps for states in the region. In conclusion, I offer some brief comments about the overall prospects for peace according to the power cycle framework, along with some recommendations for extension of the research conducted here.

Summary of Findings

This dissertation has successfully demonstrated the statistical correlation and substantive link between critical points and conflict between states in the international system. Specifically, the three primary goals of this project were accomplished via a strategy of methodological triangulation:

1) The fundamental and existing assertions of power cycle theory were confirmed in the statistical analysis and case study.

2) The logic of the theory was extended to address additional phenomena such as deterrence encounters (again via statistical analysis) and was also successfully applied to data from a series of classroom simulations. Extension was also achieved with a set

of sensitivity tests and insights gained after power cycle theory was integrated with prospect theory and the democratic peace hypothesis.

3) A more substantial and compelling link between the structural presence of critical points and the decision to go to war was established with qualitative, individual-level analysis of both the simulations and the case study.

Interstate conflict and capability data were updated to include the years 1816 through 2001. Statistical analysis of this data confirmed the original findings of Doran and Parsons (1980). In the statistical analysis of historical data, the mean severity of wars initiated during critical periods was found to be significantly higher than the mean severity of wars initiated during remaining periods. Furthermore, the raw *frequency* of war initiation and participation was also shown to be higher during critical periods. Critical points were also correlated with a higher rate of major power participation in, as well as initiation and escalation of, deterrence encounters.

In order to test the robustness of these findings, an alternative, improved method for calculating relative power cycles was employed. This method generated power cycles that, although slightly different in shape from their predecessors, still resulted in a strong correlation between critical points and the frequency, initiation and escalation of interstate war and major-power deterrence encounters. Data generated during a series of classroom simulations also supported the basic tents of power cycle theory. The structural presence of critical points (the experimental treatment of the simulations) was closely linked to conflict between the fictitious states that comprised the simulated international system of Aetolia.

The power cycle research program was also shown to adapt well to a couple of progressive problem shifts that explored the relationship between different critical points and risk propensity as well as the interactive link between critical points and regime type. Specifically, inferences were drawn from prospect theory in order to show that the first inflection and high turning points place leaders in the "domain of loss" and lead to a higher risk propensity (defined as willingness to engage in overt conflict) than the second inflection and low turning points. Evidence from the simulation and case study chapters supported this notion. I also found that democracy has a significant, negative conditioning effect on the relationship between critical points and interstate conflict, although this conclusion is based solely on statistical analysis.

Analysis of the case study provides the most convincing qualitative evidence on the importance of multilateral capability shifts, power-role gaps and the emotional trauma of critical points first hypothesized by Charles Doran (Doran 1971, 1983, 1985, 1989, 1991, 2001, 2003). Drawing from the in-depth analysis of the perceptions of German, British and French officials during the Moroccan Crisis, along with qualitative evidence of decision making during a series of classroom simulations, I will now present a series of conclusions about the substantive and complex connection between critical points and international conflict. The specifics of this causal connection will then be used to develop some general principles that govern the interplay of structural change and international conflict in the system.

A Power Cycle Blueprint for International Stability

By combining the existing logic of power cycle theory with a detailed analysis of German, British and French leaders during the Moroccan Crisis (and to a lesser extent, the decision making dynamics found in the classroom simulations), the preceding discussion has shown that international conflict is more likely to emerge when two conditions are present:

1. *Systemic Disequilibrium*, as represented by significant differences between the prestige and influence (in other words, role) enjoyed by member states, and the role that each state's relative power share substantiates.

2. *Critical Points of Structural Change* that exacerbate the threatening nature of gaps between power and role, and generate uncertainty, anxiety and other psychological symptoms that push leaders toward military action.[2]

Thus, there are two challenges faced by leaders interested in promoting systemic equilibrium. First, there must be an effort made to address existing power-role gaps via elimination of role deficit and surplus. Second, appropriate measures should be developed to dampen the effects of sharp capability reversals that cause emotional

[2] The laws of uneven development dictate that critical points along the relative power cycle are inevitable. As long as states experience differential rates of capability growth, non-linearities (critical points) in the power cycle will occur. Similar to power transition, long cycle and hegemonic stability theories, the structural cause of war for power cycle theory (critical points) is unavoidable. Moreover, because critical points are unpredictable and represent sudden and massive changes in the pattern of capability change, the psychological impact on leaders will remain significant. There is no question that critical points represent a dramatic systemic transformation that often leads to the outbreak of war. Power cycle theory differentiates itself from the other strictly structural theories, however, because the logic of the theory outlines a strategy for breaking the link between systemic change and war at the individual level of analysis. This strategy, and resulting policy applications, focuses on methods of statecraft that sufficiently reduce systemic disequilibrium.

and cognitive trauma. If leaders can successfully adjust levels of role to more closely match levels of power, there will be less latent tension and frustration for critical points to exacerbate. In other words, there will be less fuel to stoke the fire of international conflict. The notion of rank disequilibrium as a source of international conflict is not a new one (Gurr 1970; Midlarsky 1988). Solutions to feelings of relative deprivation have also been difficult to find in the realm of international politics. Power cycle theory is unique because it offers a blueprint for maintaining systemic equilibrium by effectively reducing power-role gaps that might boil to the surface during critical points in the relative power cycle.

According to power cycle theory, the most likely conditions for international conflict exist when a country(s) with a severe power-role gap passes through a critical point on their relative power cycle. Leaders experiencing the uncertainty, fear and existential threat of a critical point are more likely to address the existing power-role gap in a forceful manner, leaving the rest of the international system with two options: 1) Voluntary and significant rectification of the power-role gap for the challenging state, and/or 2) Explicit and sufficient resistance to the demands of the challenging state, in the form of a balancing coalition.

Defining International Role:

If role is the most cherished commodity in international politics, and power-role gaps are the generative cause of interstate conflict, then an important step for the

power cycle research program is the operationalization of the concept of "role" in the major power system. Unfortunately, there has been very little attention paid to this task, in either the conceptual or practical sense. William Lahneman (2003) provides the best framework for understanding international role as it relates to power cycle theory. Role is best delineated into notions of *declaratory role* and *ascribed role*. Declaratory role is based on a state's own perceptions and declarations of what its status should be in the international system. This can involve statements regarding its intentions to lead or follow in certain policy arenas, or even the establishment of formal doctrines. Ascribed role is based on the perceptions or declarations of other states in the system in regards to the role they are willing to allow the state in question to assume. The foundation of a state's both declaratory and ascribed role is that state's *operational* and *structural* power. Both of these concepts are based on hard power assets, although the former is rooted in military strength and the latter is defined by more latent economic potential.

Behavioral symptoms of international role include participation in, and leadership of international organizations, involvement with international peacekeeping operations, membership in various economic regimes or environmental agreements (such as the Kyoto Accords). Levels of foreign investment and trade are economic indicators of international influence. Cultural hegemony can also be symptomatic of a paramount role in international relations, and might be measured by statistics relating to media penetration in other countries or the number of foreign exchange students hosted. Importantly, role can be a tangible asset, such as membership in the United

Nations Security Council. It can also be more abstract, such as the role of Saudi Arabia as the "guardian" of Mecca and other Islamic holy places (Doran 1991).

Obviously, a specific and practical measure of international role is a daunting task. Indeed, it is a crucial area in which power cycle theory scholars need to make strides. After all, how is it possible to identify a potentially destabilizing role deficit (or surplus) when it is almost impossible to quantify a state's role at any given time? Lahneman (2003) makes an attempt to quantify ascribed and declaratory role in America via textual analysis of state-published foreign policy documents in France, Germany, Japan, the United Kingdom, China and Russia from 1992-1997. These documents were analyzed for any content relating to American foreign policy, and then classified in one of three categories. The first category was for documents that did not mention American foreign policy. The second category was for documents that, in one way or another, indicated a desire for an expanded American foreign policy role. The third category was for documents calling for a contracted role. On balance, more documents called for an expanded role in the international system for America, indicating that other countries wished to ascribe a greater role to the United States. Analysis of American documents suggested that there was also a general desire to increase this country's declaratory role. Surprisingly, Lahneman's study indicates a role deficit for the United States in the mid 1990s. Thus, in a backward manner, Lahneman succeeds in identifying a manner for measuring role deficit and surplus without actually operationalizing the specific components that can be used to measure role itself. Although this effort was not an ideal long term solution to the

problem of defining role in the international system, it is a successful way to identify the nature of power role gaps that are crucial for understanding the power cycle explanation of systemic instability and interstate conflict.

Differing Strategies for Addressing Role Deficit and Role Surplus:

The appropriate technique for addressing a potential challenger to international stability is very much dependent on the specific dynamics of capability change in the system. If a challenger is passing through the first inflection or high turning point, it is likely to be addressing an existing role deficit. That is, the amount of international influence and prestige it currently enjoys is short of what its relative capability share would otherwise dictate. While a challenging state may have been happy to postpone any attempt to rectify this deficit when its continually expanding capability share promised an improving bargaining position over time, the total reversal in growth rate (I_1) or direction (H) suddenly shifts expectations about the future. As soon as the critical point is detected, role deficits are more likely to be viewed as national security threats because they may soon become irreconcilable in light of the newly discovered deterioration in relative capability. To successfully eliminate a role deficit, leaders must act quickly, before their window of opportunity closes. Importantly, leaders in a challenging state with role deficit may have legitimate grievances regarding their lack of status in the system. In this case, the system is best served by allowing the challenger an expanded role in formulating and enforcing the broad set of items that

constitute the international status quo. This expanded role can come in several forms, including: 1) Symbolic gestures that enhance the prestige of the challenger, 2) Including the challenger in more multilateral organizations (some exclusive and some not) indicate a greater acceptance of that state as a key member of the "inner circle" of major powers, and 3) Ceding some leadership to the challenger in the arenas of dispute mediation and international peacekeeping (Doran 1991). While this expanded role will correlate with greater influence and prestige for the challenger (thus closing the power-role gap), the challenger must also drop any notion that they are a free-rider in the system; their expanded role also means expanded responsibility in the form of the larger economic and military burden of leadership. If the system fails to adapt and adjust in a way that accommodates the legitimate demands of a growing power with role deficit, the core problems of disequilibrium are ignored, and the probability of conflict increases. While superficial balance of power statecraft may dissuade a frustrated challenger from taking military action under most conditions, leaders in that state may see war as the lesser of two evils once anxiety over their role deficit is exacerbated by passage through a critical point.

Challenges are less likely to come from a state that is currently passing through the second inflection or low turning points. These states have a role surplus in the system – their status exceeds that which their actual capability share substantiates. Still, while these states are actually in decline, the positive change in growth rate (I_2) or direction (L) may give them what Doran labels as "delusions of grandeur." Leaders may react to the sudden change of these critical points with irrational over-

confidence about their country's ability to regain not only lost power, but lost status in the international system. There may be exaggerated efforts to restore the declining state to primacy in the system, even though nothing in the pattern of capability change legitimizes such role expansion. Again, a state with an existing role surplus is already overextended in the international arena. There is no legitimacy behind their scramble for more influence and responsibility in the system. To allow for role expansion in this case would simply push the system further from a state of equilibrium – remember that the growth of role surplus for a declining power necessarily widens the role deficit being experienced by growing states in the system. With larger role deficits, these states are more likely to challenge the system with force at some point in the future when they traverse a critical point in their capability cycle. Thus, a state that already has a role surplus must be denied any additional influence in the international arena. Resistance must be sufficient and convincing - often taking the form of a balancing coalition of states that serves as an adequate deterrent to military action.

In summary, states at any critical point in their relative power cycle represent significant threats to peace in the international system. As long as systemic disequilibrium exists in the form of role surplus or deficit, the trauma of a critical point can result in escalating hostility between states. There is no solution, at least within the realm of this discipline, for eliminating the uncertainty and anxiety for individual leaders. As mentioned, the key to managing system transformation during critical points is in the reaction of the international system to the demands of a

challenging state. It is also vital that a challenging state (i.e. that state which is seeking to reduce a role deficit or protect a role surplus) also participate in the system-wide effort to maintain stability. In the case of Britain at the turn of the century, it is easy to see how a measured but significant reduction of role surplus (as was the policy in relation to the United States) can promote peaceful interaction with quickly growing powers, while stubborn refusal to cede status and prestige in other areas (illustrated by their resistance to Germany in Morocco) can perpetuate disequilibrium and eventually contribute to conflict. Importantly, the best strategy for dealing with a challenger in role deficit is quite different from the optimal methods directed at a challenger with role surplus. These strategies are outlined in Figure 1:

Figure 1: Appropriate System Responses to Challenging States

	System Opposes Challenge	System Adapts to Challenge
Challenger has Role Deficit	(Rising State at I_1 or H) **WAR** Disequilibirum and Decreased System Stability	(Rising State at I_1 or H) **PEACE** Adjustment leads to Increased System Stability
Challenger has Role Surplus	(Declining State at I_2 or L) **PEACE** Adjustment leads to Increased System Stability	(Declining State at I_2 or L) **WAR** Disequilibirum and Decreased System Stability

Note: Adapted from Figure 7.1 (Doran 1991)

Managing Power Shifts and Potential Disequilibrium in 21st Century Asia

The general principles of power cycle theory and the specific lessons of the First World War provide a guideline for effective statecraft in the contemporary Asian sub-system. Strongly disparate rates of economic and military development in the region are likely to lead to increasing disequilibrium in the system:

> "Asia is the region where the greatest movement on the power cycles of leading states will take place and where some of the greatest structural shocks will occur. It is thus in Asia, in the 21st century, where power cycle analysis holds perhaps its greatest implications for future world order" (Doran, 2003, 44).

What, then, is to be done about preventing the Asian system in 2014 from looking like the European system a century earlier? How can the system effectively respond to a potential challenge from one or more of its members? The rest of this chapter will address these questions. Again, it is important to realize that the discussion of role-deficit or surplus, relative capability share and potential power shifts in this section is independent from that which addressed the global major power system in earlier chapters. A critical point for China in the Asian sub-system may come at an entirely different time than any critical point that might occur for that country on the global stage. The relevance of regional dynamics and instability for the global system depends on the nature of the specific situation at hand.

For a system in disequilibrium, the keys to successfully managing a challenging state are threefold. First, it is necessary to identify the key members of the system,

and to determine their existing trajectory on the relative power cycle. Of the member states, which possess the kind of capabilities and ambition to mount a serious threat to systemic stability? Is it possible that challenges could emerge both from expanding states *and* declining powers that are unwilling to reduce their role in the region? Second, the nature of the systemic disequilibrium must be accounted for. What kinds of power-role gaps exist for different states in the system? Most important, does the challenging state currently have a role deficit or a role surplus? Finally, appropriate strategies for either adapting to, or opposing the challenger must be formulated by the rest of the international system.

Key Members in the Asian Sub-system:

Any exclusive list of "significant states" in a system is subjective. I use two principles to guide my list of member states. First, the number of states I include in the Asian sub-system should roughly coincide with the six to nine powers that have traditionally comprised systems in existing power cycle analyses. Second, the selection of member states will be based on absolute capability scores as determined by the same economic, military and demographic indicators used earlier in this project. As discussed earlier, I acknowledge that the appropriate criteria for determining national capability are constantly up for debate within the discipline. The inclusion of "soft power" indicators such as technological capability and cultural influence into a measure of national power is even more tempting when trying to

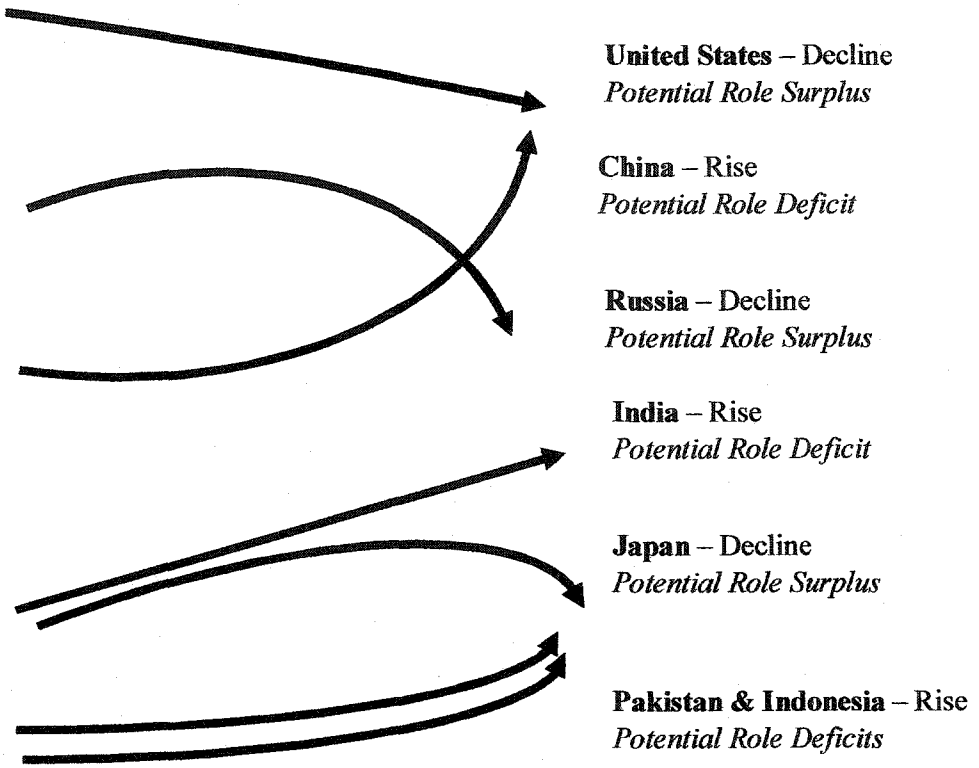
project into the coming decades. In the end, however, my decisions are based on an attempt to keep the following analysis consistent with those preceding it. Table 1 lists the seven countries that, based on 2001 levels of iron and steel production, military expenditure, military personnel, energy consumption, total population and urban population, are defined as major powers in the Asian system.

Table 1: Major Powers in the Asian Subsystem and 2001 Relative Capability Share

Country	2001 Capability Share
United States	**28.82 %**
China	**28.18%**
Japan	**10.10%**
India	**14.55%**
Pakistan	**3.35%**
Indonesia	**3.64%**
Russia	**11.26%**

From these capability scores, it is then possible to determine the relative capability shares of the states and plot them over time in order to plot their position on the relative power cycle. A compact and stylized depiction of each country's position on that cycle is found in Figure 2:

Figure 2: Capability Changes and Potential Power-Role Gaps in 21st Century Asia



"The Old Guard" *Potential Role Surplus*	**"Likely Challengers"** *Potential Role Deficit*	**"Rising Powers"** ***Potential Role Deficit***
United States **Japan** **Russia**	**China** **India**	**Pakistan** **Indonesia**

Within the Asian sub-system, the United States, Japan and Russia are the only states experiencing a decline in relative capability. Based on the logic of power cycle theory, one would expect all three of these states to have a growing role surplus over time, as their eroding power share is not likely to be accompanied by an equally significant loss in regional role. If any of the three were to challenge regional stability (most likely during an upcoming critical point I_2 for the U.S. and Russia, and H for Japan), the remaining states in the system (presumably led by China) would best be served by a policies of balancing and firm opposition to any attempts by the challengers to expand their role even further beyond levels substantiated by their actual share of power. The likelihood of a challenge by these states is, however, quite low. The United States may develop a role surplus over time, and passage through the second inflection point could generate the same "delusions of grandeur" that tempted Austria-Hungary to act so aggressively in 1914. But, to be blunt, there is not much room, short of outright territorial conquest, for the United States to expand its role in Asia. American influence, economic access and military presence are all sufficient to meet national security goals for American leaders. Even if one projects several decades into the future, and accounts for the potential non-linearities of capability change, it is hard to imagine the United States being a direct challenger to stability in Asia. Because its predominant position makes it the guarantor of the status quo, the benefits of challenging the status quo are difficult to determine.

Economic difficulties in the 1990s seem to have led to the incipient signs of relative power decline for Japan in the Asian region. If Japan is on the downward

trajectory, common sense would suggest a power-role gap characterized by role surplus. The unique political background of post-World War Two Japan, however, has resulted in some enforced and some voluntary restrictions on the Japanese role in Asia. Even after the Japanese economic explosion of the 1960s, 1970s and 1980s, its foreign policy leverage was minimal, at best. In a sense, Japan's role was absorbed and exercised by the United States. Thus, even in decline, Japan is a country with a role deficit. If the political climate in Asia changes to the point that Japan makes an independent claim for increased role, its role deficit can be addressed by a transfer of influence and responsibility from the United States. This process would both reduce the Japanese role deficit, and correct the American role surplus. While it may seem unlikely that the United States would willingly cede some of its influence and prestige, it is important to remember that some of the expense and burden of that role would consequently be reduced (Kissinger 2001). This may prove especially attractive to American leaders if crises in other regions - such as the Middle East – continue to stretch their economic and military limits.

Russia is slightly more likely than the other declining states to upset systemic equilibrium in Asia. Feelings of isolation from Europe are growing in light of European Union and North Atlantic Treaty Organization (NATO) expansion, which could lead Russian leaders to turn eastward in search of a leadership role that would return some of the political, military and cultural prestige lost in the years since the collapse of the Soviet Union. If economic reform is successful in restoring capability expansion, Russia seems particularly susceptible to the delusions of grandeur that

tempted aggression in Austria-Hungary when it passed through a critical point indicating a return to power growth. In a scenario frighteningly similar to 1914, a declining but resurgent (indicated by passage through critical point I_2) Russia might ally with a rising but suddenly constrained (indicated by passage through critical point I_1) China. Still, the prospects for growth in Russia are mixed, and an existing role surplus in Asia might be able to "soak up" some of the initial capability expansion that is possible. In the end, it might be some time before the Russians are looking to assert themselves in the kind of manner that would threaten the stability of the entire Asian region. Small-scale conflicts with traditional rivals such as China, or contained disputes such as that over the Kuril Islands near Japan will probably characterize Russian complaints in the next ten to twenty years.

If the United States, Japan and Russia are unlikely to upset the stability of the Asian subsystem, which states are more likely to pose a threat? Those countries that are growing in relative capability are also apt to develop growing frustrations over their role deficits. If concerns over these role deficits acquire more urgency in the face of critical points, rising powers in Asia will be more prone to threatening stability on a regional or even global scale. Not all rising powers, however, possess the same potential as challengers. Pakistan and Indonesia are both quickly growing states with the potential to disturb the status quo. Pakistan in particular - with its nuclear capability, continuing dispute with India, and fragile leadership, seems a potential powder keg. Still, the relatively small absolute size of these two states means that their attempts to seek an expanded role in the region are more easily met

with peripheral and symbolic adaptations on behalf of other states in the system. A massive overhaul in system leadership and norms is not necessary to keep countries like Pakistan, Indonesia, in equilibrium.

Thus, it is the larger, rising powers of India and China that are likely to be the most significant challengers to systemic stability as the 20th century progresses (Ranganathan 1999). Both states are currently experiencing a role deficit and are increasingly likely to make demands for a leadership role in Asia. These demands may take on added urgency (and be accompanied by military force) while each state passes through a critical point on its relative power cycle. There are three major reasons, however, that make India less likely than China to view its role deficit as a threat to national security that warrants a military challenge to the Asian sub-system as a whole. First, the existence and entrenchment of democracy in India means that the political and cultural advantages of wresting leadership and influence from the United States are diminished. Second, there is strong geopolitical focus on security from and competition with Pakistan on the subcontinent (Leng 2000). While this does not preclude India from belligerence (especially during a critical point), it makes a broader challenge to the entire Asian system less likely than a more specific confrontation with their neighbors to the west. Finally, the position of India in its very early stages of exponential growth suggests that the opportunity for continued expansion without a critical point is greater than that of China. Specifically, it seems likely that India's frustrations over a potential role deficit are much less likely to be exacerbated by critical point I_1 than are grievances in China. Thus, while India's

enormous potential for relative power expansion (and the concomitant role deficit) makes it a strong candidate to challenge systemic stability at some point in the future, this challenge is likely to follow a more immediate threat from the People's Republic of China. Such challenges might include internal changes such as a drastic increase in military spending, development of potentially aggressive threatening technologies in the space or nuclear fields (or both), or event-based behavior such as the Chinese refusal to immediately return the American spy plane that crashed on Hainan Island several years ago (Synnott 1999).

Focusing on a Chinese Challenge to Asian Stability:

Any member of the Asian system is a potential threat to stability. For the reasons above, however, the most likely challenger in the immediate future is the People's Republic of China. Because of a growing role deficit, its political and cultural differences with the current regional leader and its raw economic and military capabilities, the PRC will be increasingly frustrated by its power-role gap and will also have the power to demand a reduction in that gap. Furthermore, the laws that govern relative power growth and decline in the system will begin to constrain the ascendancy of China in the coming years (Kim, 1994). At some point in time, the sudden detection of critical point (I_1) will signal the replacement of exponential growth rates with a diminishing rate of power expansion. At this point, the PRC leaders will be less apt to delay their demands for power-role equilibrium, as

projections of their future bargaining position will become less optimistic. The benefits of waiting for greater leverage in negotiations over role expansion will disappear, and the need to address existing role deficits will become more urgent as the window of opportunity shrinks.

As the existing leader in the sub-system, the United States will be given the primary responsibility for addressing the Chinese challenge. Given the mechanics of this challenge within the power cycle framework, the logic of the theory dictates that system stability and equilibrium will be enhanced if the United States (and other states) successfully meet the Chinese challenge with efforts to adapt and adjust the system to incorporate a large role for the PRC. It may be very possible for American leaders to constrain Chinese influence and leadership in Asia for quite some time, but when the PRC does experience its first inflection point, projections of future bargaining power will suddenly turn grim; its long-standing role deficit will loom as a large and immediate source of threat and anxiety for Chinese leaders. In a decision making environment filled with uncertainty, officials may decide that military action is a justifiable method for closing their role deficit and solidifying their national security. Assuming continued growth in Chinese military capability (particularly their nuclear arsenal and deep-water navy), the ramifications of an armed challenge from the PRC would undoubtedly be disastrous.

It is important to stress the importance of a *multilateral approach* in maintaining systemic stability in the Asian region. Vital insights in regard to policy prescription emerge by interpreting the growth of China as a systemic – and not monadic or

dyadic - phenomenon. Clearly, the maintenance of equilibrium in Asia is not solely the result of Chinese policy or passage through a critical period. Stability is also the result and responsibility of the other members of the Asian sub-system. Some theoretical frameworks such as power transition theory limit this responsibility to the other member of the system that serves as an identifiable rival to the challenging state. In 21st century Asia, that rival will indeed most likely be the United States. Power cycle theory, however, asserts that dyadic interaction is not sufficient to guarantee peace in a time of systemic disequilibrium (i.e. the passage of one or more major powers through a critical point). The case study of the Moroccan Crisis supports this argument. Focusing on the dyadic competition between Britain and Germany was not sufficient for understanding German anxiety regarding the rise of Russia, as well as the sudden realization that – while its standing vis-à-vis Britain was improving, its overall position in the major power system was now eroding.

Thus, systemic stability is maintained with a policy of "enlightened multilateralism" (Lahneman 2003). For 21st century Asia, this policy requires countries like Russia, Britain, Japan and other regional powers to join the United States in producing a coherent and sufficient set of policies that allow China to peacefully grow into a more prominent international role. While it is not practical to expect China to reduce its declaratory role in the face of expanding capability share, it is also not likely that the United States alone can succeed in establishing an ascribed role that prevents a growing power-role gap. For China to be able to "grow into its skin" without war, a comprehensive, multilateral approach must guide foreign policy

agendas in Asia during the coming years. This is a crucial insight of the power cycle framework.

That said, what are some of the strategies that might preclude any severe crises from escalating to the point of military conflict? In what ways can the rest of the system cede some of their role to the Chinese in an effort to address the power-role gaps that will inevitably develop in the near future? As presented earlier there are three general arenas in which role transfer can occur: Symbolic role enhancement, organizational inclusion and increased leadership. These strategies were first developed as part of the foundational power cycle work of Charles Doran (1991). Although the aim of this discussion is to present broad strategies for adaptation and adjustment, specific examples of policy will be provided where possible.

Symbolic Role Enhancement:

Because it entails no direct cost on behalf of the other members, this strategy is a strong first step in signaling the recognition of the challenging state as a more significant player in the sub-system. It is also an effective manner for conveying willingness to engage the challenger in a constructive rather than confrontational manner. Symbolic enhancement can take on cultural or diplomatic characteristics, but the important feature of this strategy must be the enhancement of prestige, privilege and visibility for the challenger. The process is more effective when occurring in highly public arenas, and when it is supported by most states in the system. An

existing diplomatic example of symbolic role enhancement for the PRC was the decision by the United Nations to recognize Beijing as the rightful occupant of China's seat on the Security Council during the 1970s. [3]

A more recent, but also important symbolic role enhancement took place with the awarding of the 2008 Summer Olympic Games to Beijing. Again, although there is not a lot of tangible role transfer in this case, the opportunity for China to take center stage on the world (and obviously Asian) scene while hosting a revered event such as the Olympic Games will go a long way to easing concerns over potential role deficit in more tangible arenas. And the political importance of the Olympics should not be underestimated; recent failed bids by both Istanbul and Rio de Janeiro have elicited widespread frustration not only among Turkish and Brazilian masses, but also within the upper rungs of leadership in both countries.

Organizational Inclusion:

Role deficit can also be directly reduced by efforts to include a rising challenger in multilateral organizational structures that, in a sense, signals that state's admittance into the "club of nations." Entrance into certain organizations such as the World Trade Organization indicated that the rest of the system was ready to recognize the PRC as (at the very least) an important member of the international (and Asian) economic community. The process of organizational inclusion can also take place

[3] It is important to note that the United States has been reluctant to increase the symbolic role of the PRC: It was delayed in its diplomatic recognition of the PRC, and also active in the effort to prevent Beijing from succeeding in its Olympic bid.

bilaterally, as evidenced by the American decision to grant China Most Favored Nation trading status. Although MFN status is hardly unique for the Chinese, the gesture is still an example of inclusion. These existing acts represent initial attempts at expanding Chinese role in the system. In the future, the decision to include China as a member of the G8 group of nations might represent another effective strategy for granting additional role to the PRC at very little direct cost to other system members.

Like symbolic role enhancement, the integration of a rising challenger into key multilateral organizations does not typically inflict direct economic or military damage on the rest of the system. It is certainly possible that strategies such as including China in the WTO may impact the economic dynamics in Asia and beyond, but it seems most likely that integration will be beneficial on both economic and political fronts. Key to the strategy of organizational inclusion is an appropriate sense of timing. Simple membership in a multilateral organization will not be enough to appease an already disgruntled challenger that is already bent upon military action. Evidence of this argument can be found in an analysis of both Germany's and Japan's membership and subsequent withdrawal from the League of Nations in the 1930s. This, inclusion in economic, cultural or political organizations is most effective as a method for eliminating the early signs of ostracization that might later be exacerbated by a critical point and lead to an armed confrontation with the challenger.

Increased Leadership:

Via a greater role in regional or even global dispute mediation, participation in peacekeeping operations and gradual expansion of general political influence, a growing Chinese role deficit can be addressed most directly. Because increasing leadership in arenas that involve issues such as military personnel, deterrence and political control is more tangible than the cultural or diplomatic roles enhanced in the previous two strategies, role deficit can be corrected most directly in these areas. And current evidence suggests that attempts at these kinds of corrections might be underway, with initiative taken by the Chinese, Americans, other states and organizations such as the United Nations. Although efforts have been largely unsuccessful due to the political agenda of the North Koreans, the United States has been eager to expand the Chinese role in negotiations regarding nuclear disarmament and other contentious issues on the Korean peninsula. This strategy may be partly borne out of necessity for the Americans, but engagement in this area is still worth noting, given that the United States and China were fighting for control of the peninsula only fifty years ago. China is also being led into a greater leadership role within the United Nations Peacekeeping Operation. The PRC sent its first "blue helmets" abroad to Cambodia in 1992, but in the last two years, the Chinese peacekeeping presence expanded to include operations in eleven additional countries (United Nations 2004).

Perhaps most important in addressing the Chinese role deficit has been the decisions by Portugal and Britain to return control of, respectively, Macau (1993) and Hong Kong (1997) to China. These acts represented, on behalf of the entire system, an explicit recognition of the "special" Chinese role in the region – it simply did not make sense for any other country but China to maintain political control over these territories. With limited political unrest and strong economic growth in Hong Kong, the Chinese have demonstrated that even significant, tangible role transfer in the form of political control does not necessarily entail some sort of strategic loss for the rest of the system. This comment, however, requires at least a brief commentary on the potential crisis looming over the status of Taiwan. While voluntary transfer of political control (as was the case with Macau and Hong Kong) may be an effective tool for addressing role deficits via leadership expansion, *non-consensual territorial conquest is never a legitimate method for addressing power-role gaps of any kind.* While it is possible to argue that an enforced role deficit is a sort of international "injustice", there is no doubt that unprovoked military aggression is immeasurably more unjust. As Doran explains:

> "Accommodation must not involve the transfer to the rising state of interests and responsibilities that are territorial or involve non-negotiated losses of sovereignty for another state. Power cycle theory does not imply pacifism in the face of a threat to vital interests, certainly not in the face of aggressive behavior threatening those interests. As has been repeatedly emphasized, defensive force must be retained throughout a nation's history." (Doran 1991, 188)

The implications for the Taiwanese situation are clear. Short of a negotiated outcome in which the leaders in Taipei *voluntarily* transfer political control of the island to the PRC, the rest of the international system should not view such territorial expansion as a legitimate method for expanding the Chinese leadership role in Asia. This conclusion seems almost too obvious to mention, but the recent American invasion of Iraq is perceived by some as a similar attempt at expansion. At the very least, American policy and unilateralism is clear evidence that it is quite possible for the predominant state in the system can still challenge the equilibrium of that system. Furthermore, it should be remembered that the international system has not always punished aggressors. British and French decisions regarding Czechoslovakia in 1938 provide historical evidence of the temptation to address role deficits by trading land (no matter how strategically valuable) for peace during times of crisis. As subsequent events showed, however, this strategy does nothing more than invite increasingly illegitimate demands for expansion; until power-role gaps are corrected in a legitimate manner, the system will be mired in disequilibrium and war will remain prominent on the horizon.

Concluding Comments: The Feasibility of Adaptation and Adjustment and Ideas for Future Research

The preceding discussion aimed to underline some basic strategies for maintaining systemic equilibrium in the face of a rising challenger with role deficit.

Although analysis was rather specific to the case of China, it could be logically extended to include any number of hypothetical challengers. The crux of the argument presented is the importance of *timely and significant* efforts on behalf of the system to address the role deficit of the challenger as a method for restoring systemic equilibrium. Taken at face value, one might perceive this to be a naïve solution to the very complex puzzle that is international conflict. Indeed, at the outset of this study, it was made clear that most states are extremely reluctant to cede the prestige and influence they have fought for over the years, even if their eroding capability base makes maintenance of their existing role extremely difficult. This notion was illustrated by the behavior of Britain and France during the confrontation with Germany over Morocco in 1905. How, then, can the policy prescriptions of power cycle theory be built on the peaceful transfer of role from one state to another, and at the same time claim to be a viable blueprint for international stability? The answer lies in the most fundamental concept of the theory – the relative power cycle itself. By understanding the laws of non-linearity that govern the rise and decline of nation-states, leaders can develop a more holistic view of power and role in the system. By coming to terms with the notion of constrained ascendancy, rising states will set overly-ambitious targets for either power or role; consequently, the trauma of critical points I_1 and H will be mitigated. Not only will role deficits remain smaller, the uncertainty of critical points will no longer be sufficient to lift anxiety over these deficits to an extent where military action is employed to correct them. Moreover, comprehension of the relative power cycle will make declining states with role

surplus much more willing to cede some of their role in order to maintain systemic stability. Understanding the law of constrained ascendancy, declining states will not be as threatened by a slightly increased role for a rising challenger – the relative power cycle dictates that "what goes up must come down." Conversely, leaders in declining states will be somewhat comforted by the likelihood that their power share will not deteriorate indefinitely.

If the principles of power cycle theory come to be understood and applied by officials in the 21st century, conflict will still occur within the international system. If, however, real and honest attempts are made to minimize power-role gaps through adaptation and adjustment of the system, the chances of massive unrest can be reduced in a meaningful manner. The ability of the power cycle framework to generate a multi-layered, historically supported blueprint for international stability is what truly separates it from other existing theories of conflict. Presently, the blueprint is far from complete. There are three crucial areas that – due either to theoretical under-development or methodological challenges – should serve as beacons for further power cycle research. First, scholars need to continue to integrate the power cycle framework with insights from other areas of social science. Specifically, additional exploration of the interaction between regime type and structural change is needed, as is a better understanding of sociological concepts such as relative deprivation, which is crucial for understanding the tension that emerges from a perceived role deficit in the international system. A second aspect of power cycle theory that demands improvement is the operationalization of key concepts such as

"power" and "role." Is a high level iron and steel production really a sign of strength in the 21st century? Or do we need to incorporate ideas of soft power like cultural influence and technological development? If soft power really is the key to achieving a greater level of prestige and status in the system, should a "smokestack" country like China even be considered a growing power and likely challenger? Moreover, to correct role deficit or surplus, we need to develop strategies for measuring both ascribed and declaratory role in a more objective manner. Finally, it is absolutely vital that we achieve a more complete understanding of the complex psychological reaction of individual leaders to the sudden reversals of critical points on the relative power cycle. Increased communication with other disciplines (such as psychology) and a more structured and controlled set of laboratory experiments would be helpful in achieving this objective.

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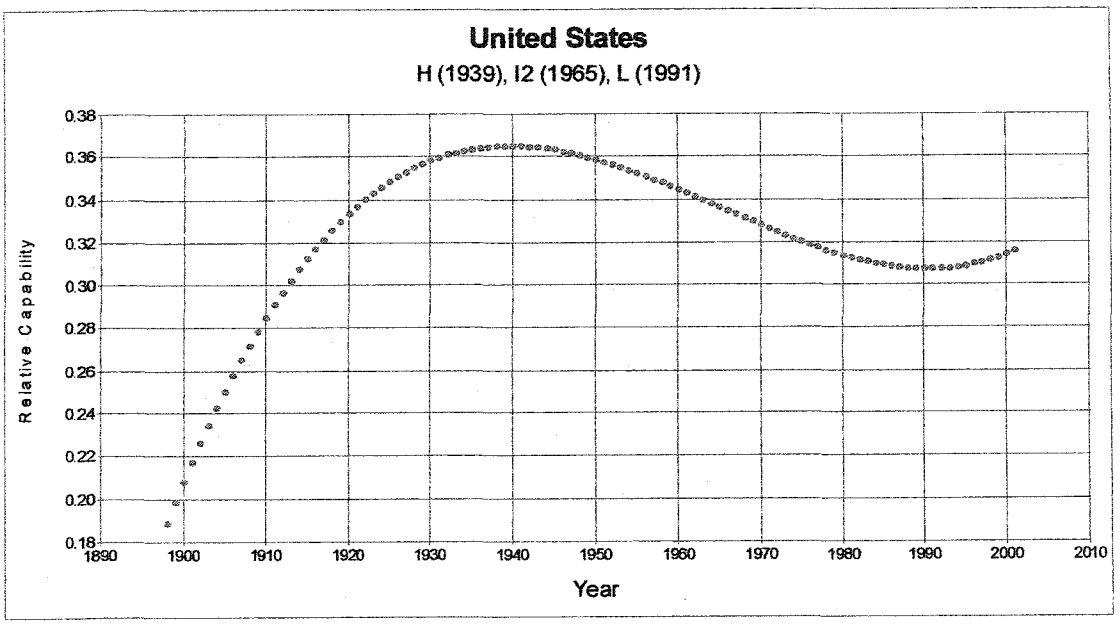
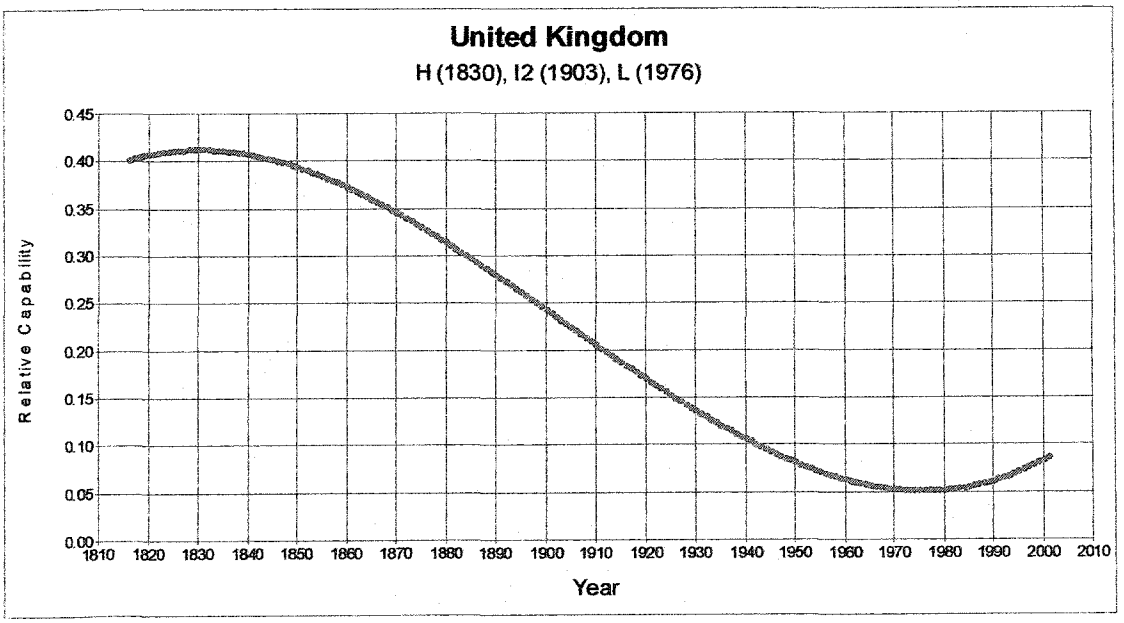
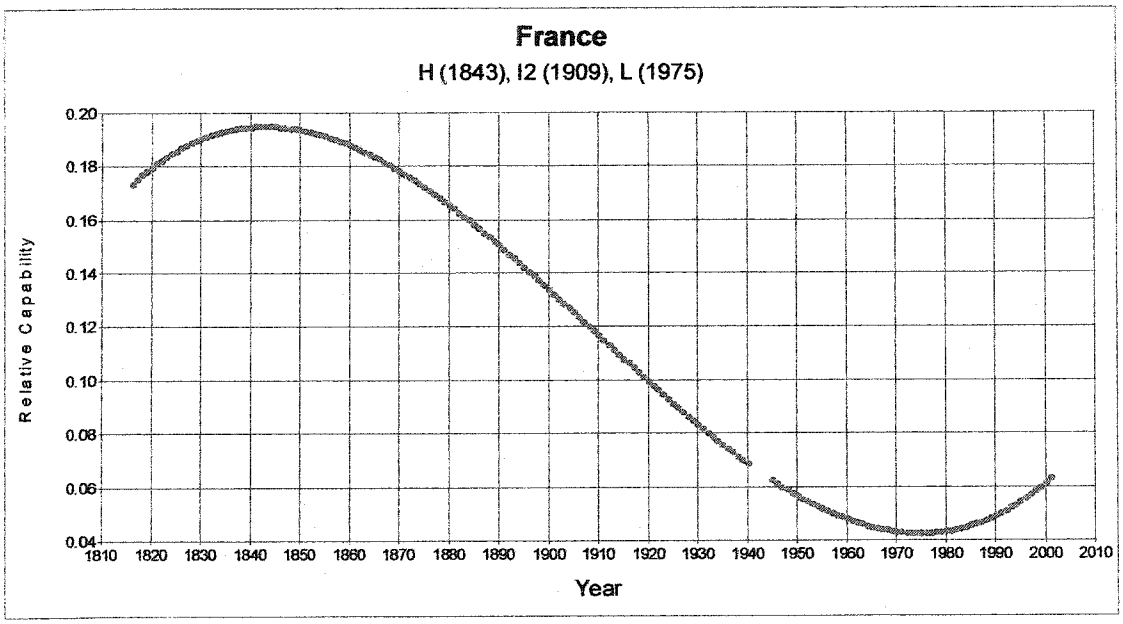
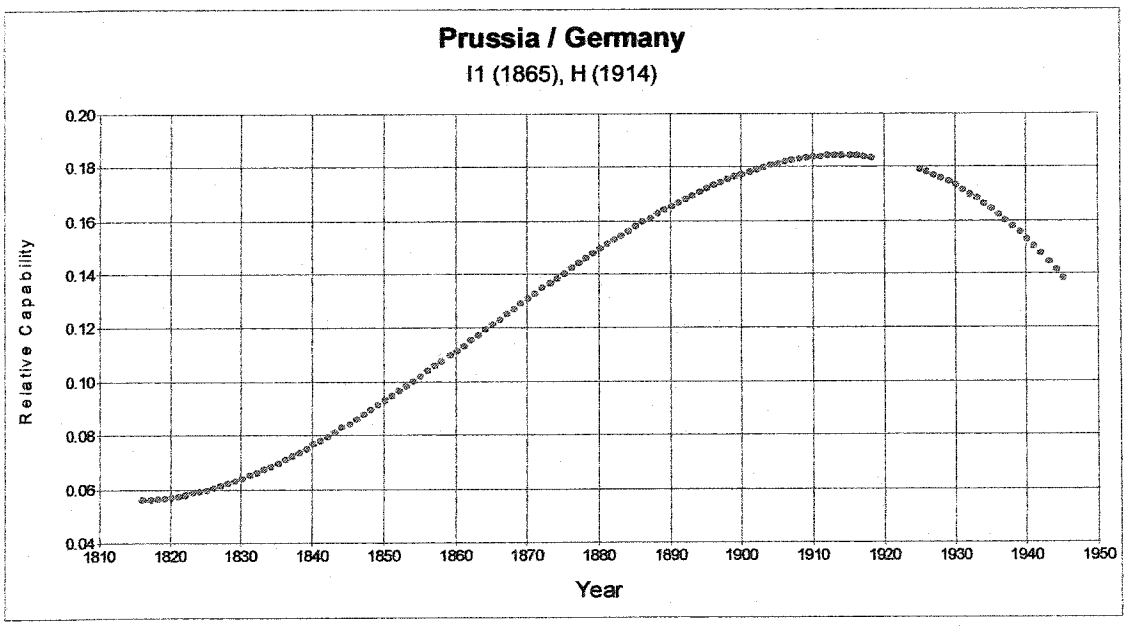
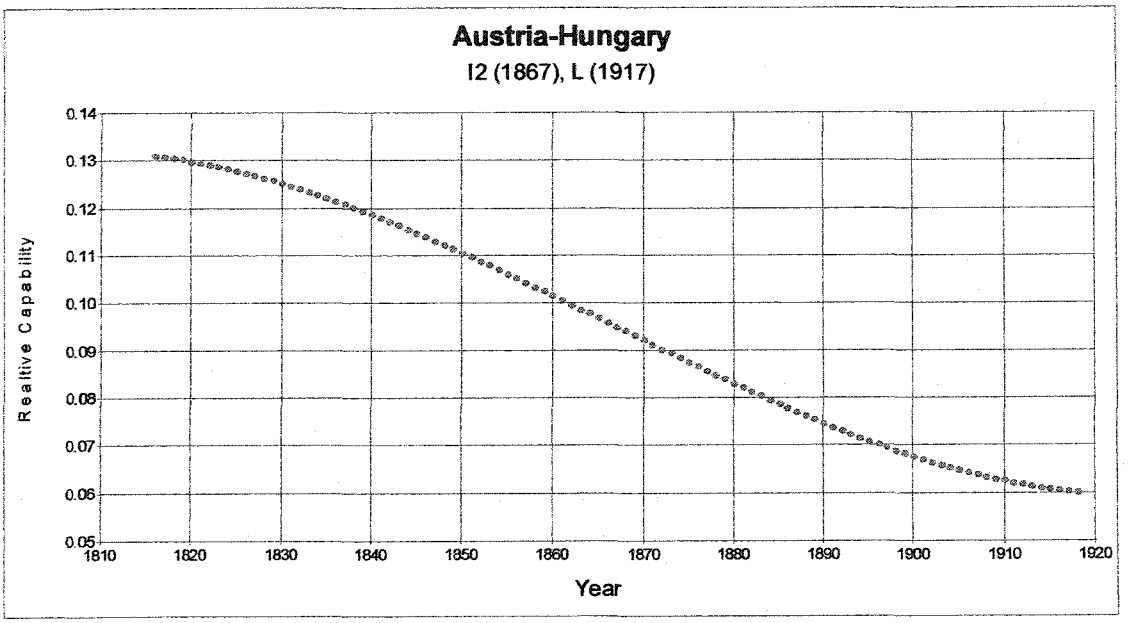
Appendix 1: Relative Capability Cycles for Major Power: 1816-2001

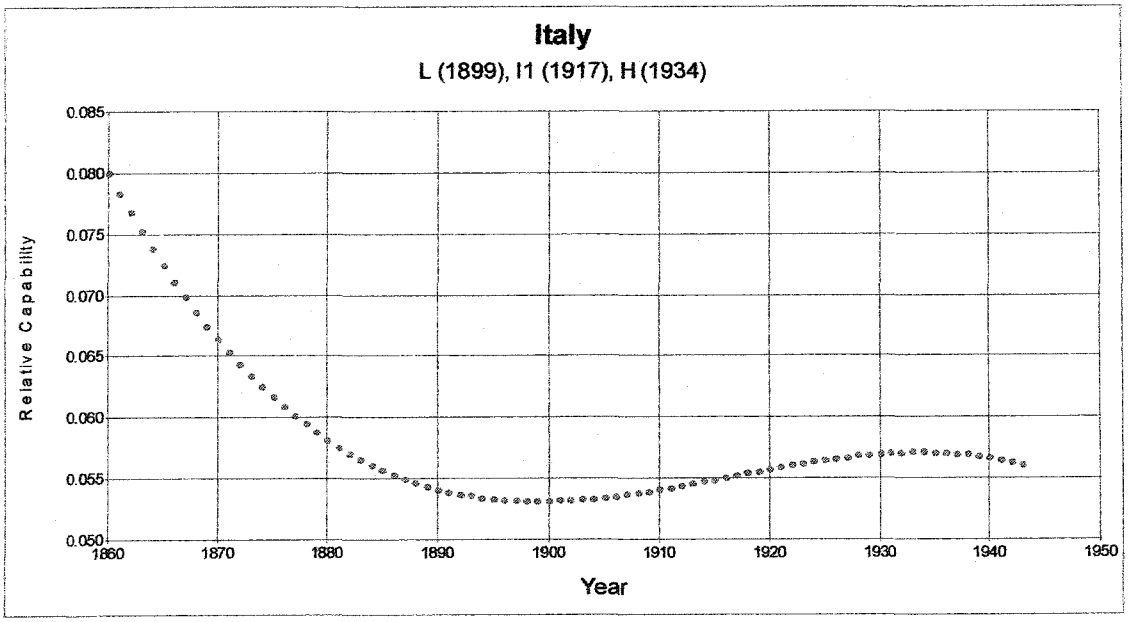


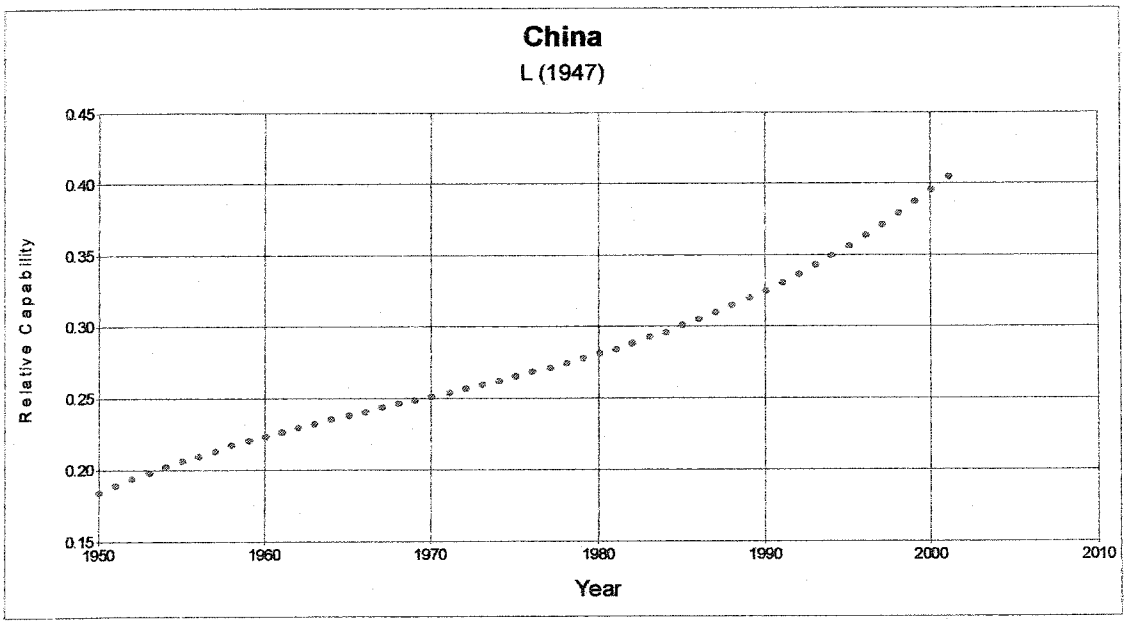


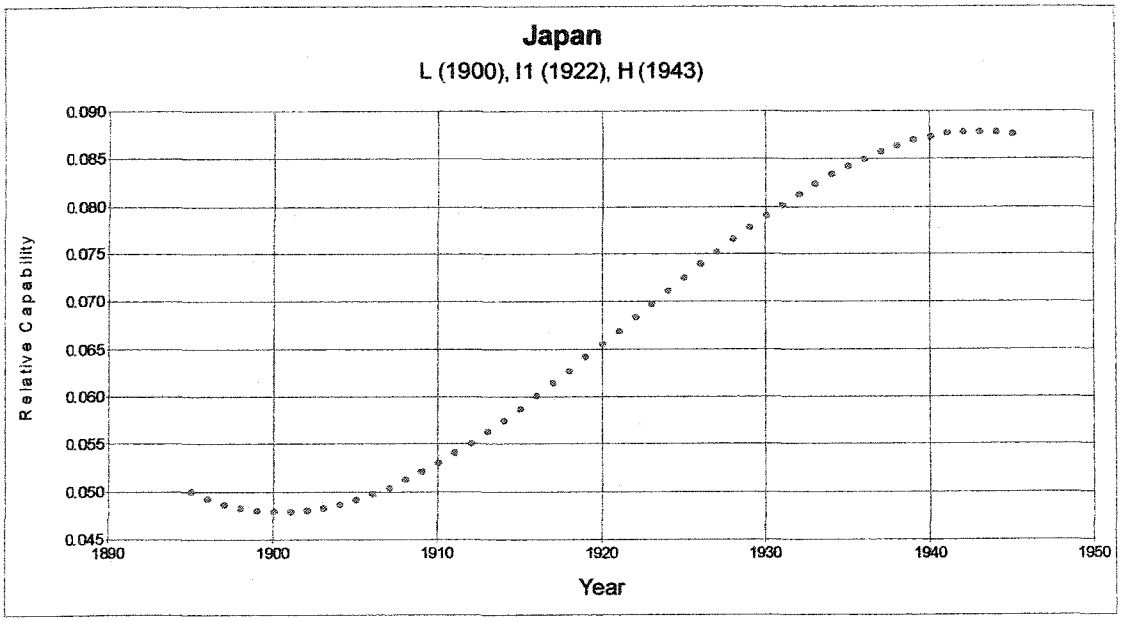












Appendix 2: Conflict Behavior at Different Critical Period Types (Updated Method)

	n	*Means (Rank)*	t *Value*[a]	*Probability*[b]
A. War Participation				
High Point	8	0.0860 (3)		
First Inflection	6	0.0968 (2)		
Second Inflection	7	0.1094 (1)		
Low Point	9	0.0804 (4)		
High Point and First Inflection versus	14	0.0903		
Second Inflection and Low Point	16	0.0909	0.0185	0.5074
B. War Initiation				
High Point	5	0.0538 (2)		
First Inflection	4	0.0645 (1)		
Second Inflection	3	0.0469 (4)		
Low Point	6	0.0535 (3)		
High Point and First Inflection versus	9	0.0581		
Second Inflection and Low Point	9	0.0511	0.2766	0.3911
C. Deterrence Involvement				
High Point	35	0.3763 (1)		
First Inflection	11	0.1774 (2)		
Second Inflection	14	0.2188 (3)		
Low Point	13	0.1161 (4)		
High Point and First Inflection versus	46	0.2968		
Second Inflection and Low Point	27	0.1534	3.1773	0.001
D. Deterrence Challenges				
High Point	15	0.1613 (1)		
First Inflection	6	0.0968 (2)		
Second Inflection	6	0.0938 (3)		
Low Point	9	0.0804 (4)		
High Point and First Inflection versus	21	0.1355		
Second Inflection and Low Point	15	0.0852	1.4658	0.036
E. Composite Risk Ranking				
High Point		(3+2+1+1) / 4 =	1.75	1st
First Inflection		(2+1+2+2) / 4 =	1.75	1st
Second Inflection		(1+4+3+3) / 4 =	2.75	3rd
Low Point		(4+3+4+4) / 4 =	3.75	4th

[a] Assuming equal variances
[b] Two-tailed significance test

Appendix 3: Comparisons of Means of War Participation and Initiation: Regime Types during Critical and Non-critical Periods (Updated Method)

	n	*Means*	t *Value*[a]	*Probability*[b]
A. War Participation (all cases)				
Autocracies	585	0.769		
Democracies	483	0.683	0.4975	0.159
B. War Initiation (all cases)				
Autocracies	585	0.0496		
Democracies	483	0.0290	1.6270	0.026
C. Deterrence Involvement (all cases)				
Autocracies	585	0.2308		
Democracies	483	0.1573	2.5280	0.003
D. Deterrence Challenges (all cases)				
Autocracies	585	0.2359		
Democracies	483	0.0766	6.3836	0.000
E. War Participation				
Autocracies				
Non-critical periods	398	0.0653		
Critical periods	187	0.1016	1.4355	0.038
Democracies				
Non-critical periods	341	0.0645		
Critical periods	142	0.0775	0.4692	0.159
F. War Initiation				
Autocracies				
Non-critical periods	398	0.0377		
Critical periods	187	0.0749	1.8073	0.018
Democracies				
Non-critical periods	341	0.0293		
Critical periods	142	0.0282	-0.0689	0.231
G. Deterrence Involvement				
Autocracies				
Non-critical periods	398	0.2211		
Critical periods	187	0.2513	0.6820	0.124
Democracies				
Non-critical periods	341	0.1466		
Critical periods	142	0.1831	0.8354	0.101
H. Deterrence Challenges				
Autocracies				
Non-critical periods	398	0.1156		
Critical periods	187	0.1444	0.9392	0.087
Democracies				

[a] Assuming equal variances
[b] One-tailed significance test

Appendix 4: Deterrence Encounters among Great Powers 1816-1995*

Years	Challenger(s)	Defender(s)	Protégé	Outcome***
1832-33	Britain France	Prussia	Netherlands	Defender
1833	Britain France	Russia	Turkey	Challenger
1840	France	Britain Russia Prussia A-Hungary	Turkey	Challenger
1848-49	Prussia	Britain Russia	Denmark	Defender
1848-49	Russia	Britain France	Turkey	Defender
1850	Prussia	A-Hungary Russia France	--	Challenger
1853-56	Russia	Britain France A-Hungary	Turkey	Neither
1856-57	Prussia	France A-Hungary	Switzerland	Challenger
1859	France	A-Hungary Prussia	--	Neither
1860-61	France	A-Hungary Italy	--	Challenger
1861	Russia	Britain	Japan	Challenger
1864	Prussia	A-Hungary	Saxony	Challenger
1865	A-Hungary	Prussia	--	Challenger
1866	Prussia Italy	A-Hungary	--	Neither
1870	Prussia	France	--	Neither
1876	Britain	Russia	Turkey	Defender
1877	Russia	Britain	Turkey	Defender
1885	Russia	Britain	Afghanistan	Challenger
1893	France	Britain	Siam	Challenger
1895	Russia France Germany	Japan	--	Defender
1897	Germany	Russia	China	Defender
1897-98	Russia	Britain Japan	China	Defender
1898	France	Britain	Sudan	Challenger
1899-1900	Russia	Japan	Korea	Challenger

1902-3	Germany Britain Italy	US	Venezuela	Challenger
1903-5	Japan	Russia	Korea	Neither
1904	Britain	Russia	--	Defender
1905-6	Germany	France Britain	--	Challenger
1908-9	A-Hungary Germany	Russia	Serbia	Defender
1911	Germany	France Britain	--	Challenger
1912-13	A-Hungary Germany	Russia	Serbia	Defender
1914-18**	A-Hungary Germany	Russia France Britain	Serbia Belgium	Neither
1914	Japan	Germany	China	Defender
1915	Japan	Russia	China	Defender
1915	Germany	US	--	Challenger
1922	Italy	Britain	Greece	Challenger
1931-33	Japan	USSR	China	Defender
1932	Britain US	Japan	--	Challenger
1933-35	USSR	Japan	Manchukuo	Challenger
1934-36	Italy	Britain	Ethiopia	Defender
1935-36	Japan	USSR	Outer Mongolia	Challenger
1936	Germany	France	--	Defender
1937	USSR	Japan	Manchukuo	Challenger
1938	USSR	Japan	Manchukuo	Neither
1938**	Germany	Britain France USSR	Czechoslovakia	Defender
1938-39	Italy	France Britain	Tunisia	Challenger
1938-40	Japan	Britain France	China	Defender
1939	Germany	France USSR	Czechoslovakia	Defender
1939**	Japan	USSR	Outer Mongolia	Neither
1939-45**	Germany	Britain France	Poland	Neither
1940-41	USSR	Germany	Finland	Challenger
1941-45	Germany	USSR	--	Neither

1941-45	Japan	US	--	Neither
1945-46	USSR	US	Turkey	Challenger
1946	USSR	US	Iran	Challenger
1948-49	USSR	US	--	Challenger
1949-51	USSR	US	Yugoslavia	Challenger
1950	China	US	Taiwan	Challenger
1950-53**	US	China	North Korea	Neither
1954-55	China	US	Taiwan	Challenger
1956	Britain France	USSR	Egypt	Challenger
1957	US	USSR	Syria	Challenger
1958	China	US	Taiwan	Challenger
1958	US	USSR	--	Defender
1958-59	USSR	US	--	Challenger
1960-61	USSR	US	Congo	Challenger
1961	US	USSR	Cuba	Challenger
1961	US	USSR	Cuba	Challenger
1961	USSR	US	--	Challenger
1962	China	USSR	--	Challenger
1962	US	USSR	Cuba	Defender
1964-65	USSR	China	--	Challenger
1965	US	China	North Vietnam	Defender
1966-68	China	USSR	--	Challenger
1969	China	USSR	--	Challenger
1970	US	USSR	Syria	Defender
1973	USSR	US	Israel	Challenger
1974	China	USSR	Mongolia	Challenger
1977	USSR	China	--	Challenger
1978	China	USSR	--	Challenger
1978-79	US	USSR	Iran	Challenger
1978-79**	China	USSR	Vietnam	Defender
1979	US	USSR	Cuba	Challenger
1979-80	USSR	China	--	Challenger
1980	China	USSR	--	Challenger
1983	US	USSR	Iran	Challenger
1983-84	USSR	US	--	Challenger
1983-84	US	USSR	Syria	Challenger

*Adapted from data originally reported by Huth *et al* (1993: 620-621), with the additional entry of the Suez Canal crisis in 1956 and the re-coding of deterrence outcomes. Six cases involving Russia/USSR were not included in this list because this country temporarily dropped out of the ranks of major states during its civil war. Similarly, four cases involving Germany were left out because this country was not considered a major state by Small and Singer (1982: 45) during 1919-1924.

**Considered by Lebow and Stein (1990) to represent deterrence encounters.

***Outcome refers to which side, if either, backed off from an escalation to sustained, large-scale combat.

Appendix 5: Wars Involving at Least One Major Power

War #	State #	State Abb	Start 1	End 1	Days	Deaths	Result	Initiator
Franco - Spanish	230	SPN	4/7/1823	11/13/1823	221	600	Loser	No
	220	FRN	4/7/1823	11/13/1823	221	400	Winner	Yes
Russo - Turkish	365	USR	4/26/1828	9/14/1829	507	50000	Winner	Yes
	640	TUR	4/26/1828	9/14/1829	507	80000	Loser	No
1st Schlesswig-Holstein	325	ITA	3/24/1848	8/9/1848	143	3400	Loser	Yes
	332	MOD	4/9/1848	8/9/1848	123	100	Loser	No
	300	AUH	3/24/1848	8/9/1848	143	3927	Winner	No
	337	TUS	3/29/1848	8/9/1848	134	100	Loser	No
	255	GMY	4/10/1848	8/26/1848	247	2500	Winner	Yes
	390	DEN	4/10/1848	8/26/1848	247	3500	Loser	No
Roman Republic	220	FRN	6/3/1849	7/1/1849	29	1000	Winner	Yes
	300	AUH	5/8/1849	7/1/1849	55	100	Winner	No
	327	PAP	5/8/1849	7/1/1849	55	1400	Loser	No
	329	SIC	5/8/1849	7/1/1849	55	100	Winner	No
Crimean	200	UKG	3/31/1854	3/1/1856	702	22000	Winner	No
	220	FRN	3/31/1854	3/1/1856	702	95000	Winner	No
	325	ITA	1/10/1855	3/1/1856	417	2200	Winner	No
	365	USR	10/23/1853	3/1/1856	861	100000	Loser	No
	640	TUR	10/23/1853	3/1/1856	861	45000	Winner	Yes
Anglo - Persian	200	UKG	10/25/1856	3/14/1857	141	500	Winner	Yes
	630	IRN	10/25/1856	3/14/1857	141	1500	Loser	No
Italian Unification	220	FRN	5/3/1859	7/12/1859	71	7500	Winner	No
	300	AUH	4/29/1859	7/12/1859	75	12500	Loser	Yes
	325	ITA	4/29/1859	7/12/1859	75	2500	Winner	No
Italo-Roman	325	ITA	9/11/1860	9/29/1860	19	300	Winner	Yes
	327	PAP	9/11/1860	9/29/1860	19	700	Loser	No
Italo-Sicilian	325	ITA	10/15/1860	1/19/1861	97	600	Winner	Yes
	329	SIC	10/15/1860	1/19/1861	97	400	Loser	No
Franco - Mexican	70	MEX	4/16/1862	2/5/1867	1757	12000	Winner	No
	220	FRN	4/16/1862	2/5/1867	1757	8000	Loser	Yes

2nd Schlesswig - Holstein	255	GMY	2/1/1864	4/25/1864	111	1000	Winner	Yes
	300	AUH	2/1/1864	4/25/1864	111	500	Winner	No
	390	DEN	2/1/1864	4/25/1864	111	3000	Loser	No
Seven Weeks	269	SAX	6/15/1866	7/26/1866	42	600	Loser	No
	300	AUH	6/15/1866	7/26/1866	42	28000	Loser	No
	280	MEC	6/15/1866	7/26/1866	42	100	Winner	No
	275	HSG	6/15/1866	7/26/1866	42	100	Loser	No
	325	ITA	6/20/1866	7/26/1866	37	4000	Winner	No
	267	BAD	6/15/1866	7/26/1866	42	100	Loser	No
	255	GMY	6/15/1866	7/26/1866	42	10000	Winner	Yes
	245	BAV	6/15/1866	7/26/1866	42	500	Loser	No
	240	HAN	6/15/1866	6/29/1866	15	500	Loser	No
	273	HSE	6/15/1866	7/26/1866	42	100	Loser	No
	271	WRT	6/15/1866	7/26/1866	42	100	Loser	No
Franco - Prussian	255	GMY	7/19/1870	2/26/1871	223	44781	Winner	No
	267	BAD	7/19/1870	11/22/1870	127	956	Winner	No
	245	BAV	7/19/1870	11/15/1870	120	5600	Winner	No
	220	FRN	7/19/1870	2/26/1871	223	152000	Loser	Yes
	271	WRT	7/19/1870	11/25/1870	130	976	Winner	No
Russo - Turkoman	365	USR	4/12/1877	1/3/1878	267	120000	Winner	Yes
	640	TUR	4/12/1877	1/3/1878	267	165000	Loser	No
Anglo-Egyptian	200	UKG	7/11/1882	9/15/1882	67	67	Winner	Yes
	651	EGY	7/11/1882	9/15/1882	67	2165	Loser	No
Sino-French	220	FRN	8/23/1884	6/9/1885	291	2100	Winner	Yes
	710	CHN	8/23/1884	6/9/1885	291	10000	Loser	No
Franco-Thai	800	THI	7/13/1893	8/3/1893	22	750	Loser	No
	220	FRN	7/13/1893	8/3/1893	22	250	Winner	Yes
Sino - Japanese	710	CHN	8/1/1894	3/30/1895	242	10000	Loser	No
	740	JPN	8/1/1894	3/30/1895	242	5000	Winner	Yes
Spanish - American	2	USA	4/21/1898	8/12/1898	114	2910	Winner	Yes
	230	SPN	4/21/1898	8/12/1898	114	775	Loser	No

Boxer Rebellion	710	CHN	6/17/1900	8/14/1900	59	2000	Loser	No
	365	USR	6/17/1900	8/14/1900	59	302	Winner	Yes
	740	JPN	6/17/1900	8/14/1900	59	622	Winner	Yes
	200	UKG	6/17/1900	8/14/1900	59	34	Winner	Yes
	2	USA	6/17/1900	8/14/1900	59	21	Winner	Yes
	220	FRN	6/17/1900	8/14/1900	59	24	Winner	Yes
Sino - Russian	365	USR	8/17/1900	10/10/1900	55	242	Winner	Yes
	710	CHN	8/17/1900	10/10/1900	55	3758	Loser	No
Russo - Japanese	365	USR	2/8/1904	9/15/1905	586	71453	Loser	No
	740	JPN	2/8/1904	9/15/1905	586	80378	Winner	Yes
Italo-Turkish	325	ITA	9/29/1911	10/18/1912	386	6000	Winner	Yes
	640	TUR	9/29/1911	10/18/1912	386	14000	Loser	No
World War One	350	GRC	6/29/1917	11/11/1918	501	5000	Winner	No
	740	JPN	8/23/1914	11/11/1918	1542	300	Winner	No
	640	TUR	10/28/1914	11/11/1918	1476	325000	Loser	No
	365	USR	8/1/1914	12/5/1917	1223	1700000	Winner	No
	355	BUL	10/12/1915	9/29/1918	1084	87500	Loser	No
	345	YUG	7/29/1914	11/11/1918	1567	70000	Winner	No
	325	ITA	5/23/1915	11/11/1918	1269	650000	Winner	No
	255	GMY	8/1/1914	11/11/1918	1564	1773700	Loser	No
	235	POR	3/1/1916	11/11/1918	986	7222	Winner	No
	220	FRN	8/3/1914	11/11/1918	1562	1385000	Winner	No
	211	BEL	8/4/1914	11/11/1918	1561	13716	Winner	No
	200	UKG	8/5/1914	11/11/1918	1560	908371	Winner	No
	2	USA	4/17/1917	11/11/1918	574	116516	Winner	No
	300	AUH	7/29/1914	11/3/1918	1559	1200000	Loser	Yes
	360	RUM	8/27/1916	12/9/1917	470	335706	Winner	No

Russian - Pole	365	USR	2/14/1919	10/18/1920	613	60000	Loser	Yes
	290	POL	2/14/1919	10/18/1920	613	40000	Winner	No
Franco - Turkish	220	FRN	11/1/1919	10/20/1921	720	5000	Tied	Yes
	640	TUR	11/1/1919	10/20/1921	720	35000	Tied	No
Sino - Russian	710	CHN	8/17/1929	12/3/1929	109	3000	Loser	No
	365	USR	8/17/1929	12/3/1929	109	200	Winner	Yes
Manchurian	710	CHN	12/19/1931	5/6/1933	505	50000	Loser	No
	740	JPN	12/19/1931	5/6/1933	505	10000	Winner	Yes
Italo - Ethiopian	530	ETH	10/3/1935	5/9/1936	220	16000	Loser	No
	325	ITA	10/3/1935	5/9/1936	220	4000	Winner	Yes
Sino - Japanese	740	JPN	7/7/1937	12/7/1941	1615	250000	Winner	Yes
	710	CHN	7/7/1937	12/7/1941	1615	750000	Loser	No
Chang - kufung	365	USR	7/29/1938	8/11/1938	14	1200	Loser	Yes
	740	JPN	7/29/1938	8/11/1938	14	526	Winner	No
Nomonhan	365	USR	5/11/1939	9/16/1939	129	5000	Winner	No
	712	MON	5/11/1939	9/16/1939	129	3000	Winner	No
	740	JPN	5/11/1939	9/16/1939	129	20000	Loser	Yes
World War Two	920	NEW	9/3/1939	8/14/1945	2173	12200	Winner	No
	355	BUL	12/13/1941	9/8/1944	1001	9000	Loser	No
	360	RUM	9/9/1944	5/7/1945	241	10000	Winner	No
	375	FIN	6/25/1941	9/19/1944	1183	65000	Loser	No
	385	NOR	4/9/1940	6/9/1940	62	3000	Winner	No
	530	ETH	1/24/1941	7/3/1941	161	5000	Winner	No
	560	SAF	9/6/1939	8/14/1945	2170	8700	Winner	No
	710	CHN	12/7/1941	8/14/1945	1347	1350000	Winner	No
	712	MON	8/10/1945	8/14/1945	5	3000	Winner	No
	355	BUL	9/9/1944	5/7/1945	241	1000	Winner	No
	900	AUL	9/3/1939	8/14/1945	2173	33826	Winner	No
	360	RUM	6/22/1941	8/23/1944	1159	290000	Loser	No
	740	JPN	12/7/1941	8/14/1945	1347	1740000	Loser	No
	255	GMY	9/1/1939	5/7/1945	2076	3500000	Loser	Yes

	140	BRA	7/6/1944	5/7/1945	306	1000	Winner	No
	350	GRC	10/25/1940	4/23/1941	181	18300	Winner	No
	200	UKG	9/3/1939	8/14/1945	2173	418765	Winner	No
	210	NTH	5/10/1940	5/14/1940	5	7900	Winner	No
	211	BEL	5/10/1940	5/28/1940	19	9600	Winner	No
	365	USR	6/22/1941	5/7/1945	1423	7500000	Winner	No
	220	FRN	7/7/1940	7/14/1941	373	2500	Loser	No
	290	POL	9/1/1939	9/27/1939	27	320000	Winner	No
	310	HUN	6/27/1941	1/20/1945	1304	136000	Loser	No
	325	ITA	6/10/1940	9/2/1943	1180	174500	Loser	No
	20	CAN	9/10/1939	8/14/1945	2166	41992	Winner	No
	325	ITA	10/18/1943	5/7/1945	568	52400	Winner	No
	2	USA	12/7/1941	8/14/1945	1347	405400	Winner	No
	345	YUG	4/6/1941	4/17/1941	12	305000	Winner	No
	220	FRN	9/3/1939	6/22/1940	590	210824	Winner	No
Russo - Finnish	365	USR	11/30/1939	3/12/1940	104	50000	Winner	Yes
	375	FIN	11/30/1939	3/12/1940	104	24900	Loser	No
Franco- Thai	220	FRN	12/1/1940	1/22/1941	53	700	Loser	No
	800	THI	12/1/1940	1/22/1941	53	700	Winner	Yes
Korean War	710	CHN	10/27/1950	7/27/1953	1005	422612	Tied	No
	731	PRK	6/24/1950	7/27/1953	1130	316579	Tied	Yes
	732	ROK	6/24/1950	7/27/1953	1130	113248	Tied	No
	800	THI	1/20/1951	7/27/1953	920	114	Tied	No
	840	PHI	9/16/1950	7/27/1953	1046	92	Tied	No
	640	TUR	10/18/1950	7/27/1953	1014	717	Tied	No
	900	AUL	12/10/1950	7/27/1953	961	281	Tied	No
	350	GRC	1/20/1951	7/27/1953	920	169	Tied	No
	220	FRN	1/1/1951	7/27/1953	939	288	Tied	No
	211	BEL	1/20/1951	7/27/1953	920	97	Tied	No
	210	NTH	1/20/1951	7/27/1953	920	111	Tied	No

Russo - Hungarian	365	USR	10/23/1956	11/14/1956	23	1500	Winner	Yes
	310	HUN	10/23/1956	11/14/1956	23	2502	Loser	No
Sinai	200	UKG	10/31/1956	11/6/1956	7	22	Winner	No
	666	ISR	10/29/1956	11/6/1956	9	189	Winner	Yes
	220	FRN	10/31/1956	11/6/1956	7	10	Winner	No
	651	EGY	10/29/1956	11/6/1956	9	3000	Loser	No
Assam	710	CHN	10/20/1962	11/22/1962	34	500	Winner	Yes
	750	IND	10/20/1962	11/22/1962	34	1353	Loser	No
Vietnam	811	CAM	3/1/1970	4/17/1975	1874	2500	Loser	No
	900	AUL	2/7/1965	12/20/1972	2874	494	Loser	No
	840	PHI	10/1/1966	1/28/1973	2312	1000	Loser	No
	2	USA	2/7/1965	1/27/1973	2912	58153	Loser	Yes
	800	THI	10/1/1967	1/28/1973	1947	351	Loser	No
	816	DRV	2/7/1965	4/30/1975	3735	700000	Winner	No
	732	ROK	5/1/1965	1/28/1973	2830	4687	Loser	No
	817	RVN	2/7/1965	4/30/1975	3735	254257	Loser	No
Falklands / Malvinas	200	UKG	3/25/1982	6/20/1982	88	255	Winner	No
Sino - Vietnamese	816	DRV	1/5/1987	2/6/1987	33	2200	Tied	No
	710	CHN	1/5/1987	2/6/1987	33	1800	Tied	Yes
Persian Gulf	645	IRQ	8/2/1990	4/11/1991	253	25000	Loser	Yes
	698	OMA	1/16/1991	4/11/1991	86	0	Winner	No
	696	UAE	1/16/1991	4/11/1991	86	6	Winner	No
	694	QAT	1/16/1991	4/11/1991	86	0	Winner	No
	690	KUW	8/2/1990	4/11/1991	253	1000	Winner	No
	670	SAU	1/16/1991	4/11/1991	86	33	Winner	No
	651	EGY	1/16/1991	4/11/1991	86	10	Winner	No
	600	MOR	1/16/1991	4/11/1991	86	0	Winner	No
	325	ITA	1/16/1991	4/11/1991	86	0	Winner	No
	220	FRN	1/16/1991	4/11/1991	86	2	Winner	No
	200	UKG	1/16/1991	4/11/1991	86	24	Winner	No
	20	CAN	1/16/1991	4/11/1991	86	0	Winner	No
	2	USA	1/16/1991	4/11/1991	86	268	Winner	No
	652	SYR	1/16/1991	4/11/1991	86	0	Winner	No

The conflict data in Appendix 5 is taken, and modified, with permission from the Correlates Of War Project at the University of Michigan

Appendix 6: International Politics Simulation

INTRODUCTION

This is a classroom simulation that will allow you to learn about some of the issues, problems and general dynamics of international politics. As a key member of a fictitious country, you will play a crucial role in your state's foreign-policy making process. Thus, you will have a great deal of influence over the way that your country, and the international system as a whole, operates. In each country, there is at least one Chief Decision Maker (CDM), Diplomat (DIP), Economic Advisor (ECA), Opposition Leader (OPP) and Intelligence Officer (INT). During the game, you will encounter a number of phenomena that face leading decision-makers in the "real world:"

- Bureaucratic conflict and compromise within countries
- Decision-making under conditions of uncertainty and time pressure
- The role of culture, religion and history in international relations
- The importance of diplomatic relations and communication
- International Organizations and their importance
- Propaganda
- Intelligence gathering and secrecy
- Natural resources and their economic importance
- Territorial disputes
- Backstabbing among government officials and between states
- The necessity of satisfying your citizenry

- Existence of multiple tools for coercion such economic sanctions, exclusion from international organizations and military force.
- Religion as a source of pride and conflict
- Ecological issues and their effect on international politics

RULES OF THE GAME

This section is extremely important for you to understand. If the following guidelines are not clear to you, ASK QUESTIONS BEFORE THE SIMULATION STARTS. If you don't, the integrity of the game might be compromised, and your country might suffer a penalty.

Basic Goals: Your country is one of eight sovereign states. Although one country – Euboea – is an island, you are all considered to be located on the continent of Aetolia, which is surrounded by the Myrtoum Sea. As a member of a particular country, you will be responsible for reading the country descriptions, and adopting the ideological and political stance that is outlined for your specific state. Of course, it is up to you (and your teammates) to chart the future of your country, but failure to behave in accordance with the elemental beliefs and values of your states will result in a fine to be determined by the World Council (as represented by me). The World Council is not active in the operation of everyday politics in Aetolia, but is simply an overarching organization that has the power to ensure that the simulation runs smoothly.

The primary goal of your country is to earn "objective points." To earn these points, you should strive to achieve the objectives outlined for you by the World Council. Examples of objectives might be the development of a trade agreement with a designated country, the exploration of a specific region of the map, the acquisition of a particular piece of land or maybe the development of an international organization that supports your country's belief systems. These objectives are grouped into three categories: Diplomatic, Economic and Territorial. The more objectives you accomplish, the better your country will score. The country that score the most Objective Points is the victor. For specific rules regarding objectives, reference that section in this dossier.

Thus, it is important to remember that it is not the most powerful country that "wins" the game, but the country that is able to earn the most objective points by the end of the last turn. Some countries will have many more resources (which will be indicated by the number of "factors" you are allocated at the beginning of each turn) at their disposal than will other countries. While these states may have more clout in Aetolia, the objectives that they must achieve are likely to be more difficult than the objectives of smaller states. In some cases, it is possible to earn partial credit if you achieve some, but not all aspects of an objective. The World Council will make all decisions regarding these matters, and all decisions are final.

In addition to the interstate competition for objective points, there is also an individual competition based on the specific role that you are assigned

within your country. In this competition, each member within the state will be judged by a specific criterion. For example, each diplomat is (in addition to helping their state achieve the most overall objective points) particularly interested in helping her state achieve the "Diplomatic Objectives" that are outlined for them. If you are diplomat, and your state earns more Diplomatic Objective points than any other state, you have defeated all the other diplomats in the individual competition. For specific rules regarding the specific objectives of each member of your country, please reference the role description and objective section of this dossier.

Resource Factors: At the beginning of each turn, the World Council will allocate a certain number of resource factors to your country. Factors do not accumulate from turn to turn. Any factors you do not use will simply "disappear," and you will receive a new allocation before the next turn. These factors are necessary to undertake certain actions during the course of the turn. In many ways, factors represent "power" in Aetolia. The more factors you are allocated, the more options you are likely to have. To reflect the imbalance of power among states in the "real world," every country will receive a different number of factors.

For all countries, the initial factor allocation is included in this dossier. This "first" allocation is more for informational purposes than anything else. You will not have a chance to use these factors before they disappear. Still, for planning purposes, it will be useful for you to know where your country

stands vis-à-vis other states in terms of power. It is also important to remember that your allocation may change from one turn to another.

The World Council will make sure that your country receives its factor allocation for the next turn **by the end of the day of the just finished turn**. For example, you will receive your factor allocation for Thursday's class by 9 p.m. on Tuesday night. This will allow time for you and your teammates to discuss (in person, via email, phone etc.) strategy for the next turn.

At the very beginning of class, your country's Economic Advisor will submit a factor distribution form to the World Council. In this form, you will state how many of your allocated factors you are devoting to:

A) Military

B) Industry

C) Welfare

D) Specific Actions

Your distribution will depend on the goals that you have for that turn. Factors distributed to the military can be used if you engage in military action on that turn. The number of factors you can devote to a war is limited by the number of factors you distributed to the military at the beginning of that turn. So, if you feel like your security is threatened, don't shortchange yourself in this area! Factors you devote to industry will aid in the economic performance of your country, although there may not be a direct correlation between economic performance on this turn and the number of factors that the World Council allocates to you on the next turn. At the same time, your economic

advisor will pull for heavy investment in this area. They may have a point; having a strong economy may increase your military's ability to prevail in some wars. There are no guarantees. The factors you devote to welfare will help to keep your citizens healthy and happy. Improving the welfare of your country is important to keep the opposition leader from getting too restless. You may also be interested in allocating some factors to any number of special actions. These actions will vary, but they may include various public works projects or donations to allies. If such a donation is made, the recipient may include the incoming funds in their factor distribution. In the end, specific actions are anything that requires your country to spend factors on something particular. While factors can be used to "buy" concessions from other countries, you must distribute the factors to the target country at the beginning of the turn. You must then rely on the good faith of that country to formally make the agreed upon concession during the subsequent turn. This takes a leap of faith! It is important to remember that your factor distribution will be completed at the very beginning of the turn, so you need to plan carefully. Once class begins, you can't transfer factors from one sphere to another!

Diplomacy: Much of the class period will be spent negotiating with other countries. Each country will have an area of the classroom that is considered their territory. This territory cannot be entered by any members of any other country. Communication between countries can occur in two ways: First,

written messages can be sent to the World Council, who will make sure the addressee receives the message. Face-to-face communication can only occur between Diplomats in the neutral zone at the front of the classroom. To invite another Diplomat for personal discussion, your country must send a written invitation to that Diplomat's country. Invitations can be accepted or declined. Requests for multi-national summits or conferences must also be made via written request, which the World Council will deliver to the relevant countries. UNDER NO CIRCUMSTANCES CAN THERE BE YELLING ACROSS THE ROOM, OR DISCUSSION BETWEEN STATES OUTSIDE THE NEUTRAL ZONE!!!

The communication that occurs in the classroom is considered official communication. All treaties, agreements, declarations of war, announcements of record etc. must be signed by the relevant parties IN CLASS to be considered formal and legal. That said, international politics is also very much about unofficial communication. Meetings, phone calls, and emails between any players from any combination of states are perfectly acceptable, and are very much encouraged. Just because it is necessary to finalize an economic alliance with another state in class does not mean that there can't be nitty-gritty negotiation behind the scenes! **For the benefit of your participation grade, make sure to "Cc" brock.tessman@colorado.edu with all email communication that is relevant.**

Action Forms: In order to be considered official, all political activity (including factor distribution, treaties, alliance, economic agreements, official announcements, territorial concessions, declarations of war etc.) must be submitted in writing to the World Council. There is a single form that will accommodate any sort of action that a state wishes to take. A single copy of this form is included in this dossier as an example. There will be sufficient Action Forms provided to you at the beginning of each class period. The forms are fairly self-explanatory, but it is important to note that, for each action you wish to take, you will need to indicate what type of action it is, provide a very specific but concise explanation of the action in the area provided, and then obtain the necessary signatures to make the action official. The signatures required will vary with the kind of action desired (treaties will require signatures from all relevant states while declarations of war may only require signatures from a single state) and also with the regime type of country taking action.

Regime Type and Change: In addition to affecting the type of objectives that your country is trying to achieve, the regime type of your state will dictate the way that your country goes about the foreign policymaking process.

Specifically, if your country is a democracy, any action form that you submit must contain at least three signatures approving the action. One of these signatures must be that of the Chief Decision Maker (CDM). This is meant to reflect the need for broad policy support in a democracy. If your

country is a non-democracy (monarchy, dictatorship etc.), any action form you submit need only be approved by the CDM. Decision-making power rests solely with the CDM.

Still, in both democracies and non-democracies, the CDM needs to have some level of support within their own ranks; if the opposition leader can garner four signatures (including her own) calling for the overthrow of the current CDM, there is a regime change. The opposition leader becomes the new CDM, and the ousted CDM becomes the new opposition leader. The new CDM decides whether the country will be a democracy or a non-democracy.

Resolving Conflict: In most cases, you should be able to achieve your objectives by using diplomatic and economic tools to overcome a conflict of interests between two states. Sometimes, conflict will give way to total cooperation, and objectives will be easily accomplished. However, it is possible that either the nature of an objective or the absence of grounds for cooperation will lead to military conflict between two or more states. It is important to know how such conflict is to be initiated, and how it will be resolved.

Toward the end of each class (with about 15 minutes left), the World Council will call a halt to all negotiations between countries. At this time, the Council will announce all of the treaties, agreements, alliances, embargos, etc. that have become official during that class period. All paperwork must be submitted to the World Council by this time. Included in this paperwork must

be any declarations of war. The Council will announce these declarations after all other announcements.

Each declaration of war must:

1. State the country(s) declaring war and the country(s) that is the target of the declaration.

2. State the goals of the war (what is the objective you hope to achieve?) **Important: Countries will be penalized by the World Council if their stated goal does not relate reasonably well to an objective presented to them on their objective sheet. For example, unless your country is given the objective of "Eliminating state X from the face of the Aetolia," pursuing the total defeat of State X will result in a penalty.** If a state does suffer total defeat, their government will go into exile, and will continue to receive a factor allocation that they can use in the same way that they always have.

3. Each declaration of war must also include the total number of military factors that the attacking country(s) is devoting to the war.

4. After all declarations of war are announced, the target(s) of each declaration will have 5 minutes to either surrender and agree to the terms of the declaration, or decide to resist the attack. If the defenders surrender, the attacking state(s) achieve their stated goals, and the needed adjustments are made. If the state(s) are resisting, this time may also be used to attempt to gain the military support of other states in the system. The final defending state(s) must declare their resistance (along with required signatures) in an action

form. This action form must also state the number of military factors the defending state(s) is devoting to the war. This process must occur for EACH DECLARATION OF WAR THAT IS MADE. The time allotted for the defender's response, however, remains fixed at 5 minutes.

5. The final act in class will be the announcement of all wars that are to be resolved, including the attacking and defending state(s) in each war. Also, the total "balance of factors" for each side will be announced.

6. The night after class, the World Council will announce the outcome of the war, which will be based on:

-The "balance of factors devoted by each side

-The economic and social health of the participant states

-The geographic location of the war. Although any state may attack any other, a war in a far away location, or across a body of water, will reduce the effectiveness of your military (remember the Loss of Strength Gradient?).

The outcome of the war, along with a summary of all the objectives achieved and objective points awarded will be announced via and email newsletter. The World Council will distribute this newsletter by 9 p.m. the day of the previous class. For example, wars declared on Tuesday will be resolved and announced in the newsletter that will be sent out by 9 p.m. that night.

OVERALL GEOGRAPHICAL DESCRIPTION OF THE SYSTEM

Please refer to the attached map that is provided to aid the following discussion. Countries are coded by color, and any unclaimed territory is colored gray. Water is indicated by white squares. Country names are in all capital letters. Cities are labeled in normal text, and their precise location is symbolized by a shaded square. Rivers are indicated by blue lines on the map, and mountains territory is marked with "Mtn." There are three types of natural resources in the system; oil fields, fishing waters and mineral deposits. Squares containing these resources are marked by an "O," "F" and "M," respectively. Squares containing more than one type of resource have combined labels, such as "FO." Specific locations on the map can be defined by referring to the coordinate system running across the top, and down the left side of the map. For example, the city of Matinea – in Arcadia – is located at hex "J14."

There are eight countries in the international system: Chalcidice, Thrace, Euboea, Arcadia, Epirus, Thessaly, Messina and Caria. With the exception of Euboea, all countries are located on a singular, large continent called Aetolia. Aetolia and the island of Euboea are surrounded by the Myrtoum Sea. The Great Sardis River runs from west to east across Aetolia. The river also has a northern branch that flows north into Thrace and a southern branch that flows through Messina, then Caria.

In addition, there are two "unexplored" and ungoverned regions to the north and south: Cyclades, and Sporades, respectively. No single country currently claims ownership over either region, despite the fact that almost all countries have at least some economic interest in Cyclades, Sporades, or both. This is due to the massive natural resource assets (oil and mineral) that are located in each region. Please consult the map for precise locations of these resources.

The unexplored territories are populated by peoples that most of the civilized world considers "barbarians." Untamed tribes are concentrated in Amorgos (Cyclades) and Skyros (Sporades), which are both more shantytowns than cities.

COUNTRY DESCRIPTIONS

CHALCIDICE:

Chalcidiceans

This country is located in the northwest corner of the map; it is the second largest country in the system, and is dominated by rugged mountains in the center of the country and wind-lashed coastal plains. The weather is harsh in Chalcidice – the winters are brutally cold and the summers are hot and humid.

The people are renowned for their sturdiness and their ability to brave the difficult climate.

The capital of Chalcidice is the city of Potidea, which was founded on a vast swamp in the eastern portion of the country. The other major city in Chalcidice is Torone, which lies in the southwest, directly across from northern Euboea. In the southeast, the Athos Peninsula features a sizable oil field, and also has very rich fishing waters in the waters off its southern tip. Two islands also have oil fields. Scione lies directly south of the peninsula, in resource rich waters. Mende, to the west of Scione, is part of the Dolopes archipelago (with islands also belonging to Euboea and Arcadia). To the north of Chalcidice is the vast land of Cyclades, which has no organized government, and is an area currently open to exploration and potential colonization. The resources available in Cyclades make it especially attractive, not only to Chalcidice but to all countries in the system. There are some mineral resources in the north of Chalcidice, and a fair-sized fishing area in the northeast that Chalcidice shares with Thrace. The Pella canal separates the country from Thrace in the east, and is operated jointly by the two countries. This canal is a key access point for all countries in the system to reach Cyclades. The Pella canal is open to ships from all countries.

Chalcidice is a monarchy – the ruling family has handed down rule over the centuries using a hereditary system of succession. Over the course of time, there have been sporadic attempts to unseat the ruling family and turn Chalcidice into a democracy. These efforts have failed. Still, the city of

Torone has long been a center of revolutionary activity, as it is home to a large minority population - the Toronados. The Toronados also have strong links to their ethnic kin in northern Euboea.

THRACE:

Thracons

Thrace is the largest country in the system – it is located in the northeast corner of the map. Like Chalcidice, Thrace has a large mountain chain - these mountains run north to south, and separate the low-lying flatlands of western Thrace from the eastern seacoast. Off the northeastern seacoast, ice is present year-round – Thrace alone possesses the icebreaking ships necessary to allow passage of sea traffic up and down their eastern coast. Another group of mountains – known as the Pindus Range – rise in the southwest of Thrace and divide it from the states of Messina and, to a limited extent, Arcadia.

The capital of Thrace is Amphipolis, which is located on the west-central coast. This is the only major city in Thrace, and the vast majority of the population lives in the city and its immediate surroundings. The fort of Eion is in the far northwest of the country, across the Pella canal from Chalcidice. Eion is on a bluff overlooking the southern entrance to the canal, and is thus in a strategic position to control access to the canal. Right now, Thrace shares administration of the canal with Chalcidice, and both countries keep the canal open to ships from all countries.

There are vast mineral and fishing resources on the eastern coast of Thrace, although they are separated from most of the country by mountainous land, thus making access difficult. In addition, there is a minor oil field in the north of the country. Further north are the pristine lands of Cyclades, which are ungoverned and resource-rich. Thrace also has some access to oil and fishing waters off its west coast. It currently shares access to these resources with Arcadia and Chalcidice. The far north branch of the Great Sardis River runs from south to north through the country, and has served as a traditional invasion route for those that hoped to conquer Thrace. Thracons consider the Sardis River as a holy river, and they make an annual pilgrimage to the river in order to satisfy their religious duties.

Thrace was among the first countries in the system to democratize. That process took a revolution to complete, but the government has since stabilized. Despite their religious fervor, the Thracons are ardent supporters of democratic ideals, and they actively support democratic movements in those states that are still ruled non-democratically. At one point, the country of Thrace included all lands north of the south branch of the Sardis river. These lands were transferred to Messina and Caria after an earlier war in which Thrace was defeated.

EUBOEA

Eubites

An island nation in the western portion of the map, Euboea has two major cities – Eretrea and Delium. Eretrea is the capital city, and is located in the southern portion of the island. The south of Euboea is dominated by pastureland and gentle rolling hills. The Carystus mountains and the Chalcis River separate the southern peninsula of the country from the northern territories (known as the Artemesium Promontory), where the city of Delium is located. Fort Scyrus lies of the northern coast, and is an important island stronghold that is highly coveted for its strategic position between Euboea and Chalcidice.

The country is not especially rich in natural resources, with minor mineral deposits in the south, and fishing waters that it shares with neighboring countries off both the northeast (sharing with Arcadia and Chalcidice) and southeast (sharing with Arcadia) coasts. Because of their general lack of natural resources, Eubites have become a trading nation. In addition, Euboea has been able to access the resource rich lands of Cyclades by sending its ships through the Pella canal (between Chalcidice and Thrace near the city of Eion).

Euboea is known as a very stable democracy with a very liberal value system. Its system of government serves as a role model for some of the

newer democracies in the system, such as Messina. There are some ethnic groups in Euboea, however, that claim life is not all rosy in this island nation. The Toronados – an ethnic group that dominates the Artemesium Promontory – are constantly pushing for an independent nation-state that would be built from land in both Euboea and Chalicide, where Toronados dominate the southwest of the country. Indeed, the cities of Delium (in Euboea) and Torone (in Chalcidice) both have a large population of Toronados that often riot and demonstrate as a way of expressing their desire for independence. These actions have, in the past, become violent.

ARCADIA

Arcadians

Arcadia is at the geographic crossroads of the international system; it directly borders four countries (Thrace, Messina, Epirus and Thessaly), and is in close proximity to two more (Euboea and Chalcidice). The capital of Arcadia, Matinea, is arguably the oldest city in the system and has long been a commercial and financial center for all countries. On the west coast lies the beautiful city of Argos, which the ancient Arcadians built as a symbol of their cultural and economic strength. The majority of Arcadia is covered by the vast Elisian plain. The flat and arable land has been farmed by Arcadians for centuries. In southeast of the country, the Great Sardis River forks and then

reconnects as it flows through the Pindus Range (the Mountains that rise at the border of Arcadia, Thrace and Messina). The land in between the north and south forks of the river is known as Zacynthos. In the southwest of the country are the Olympian Mountains, which straddle the borders between Arcadia, Epirus and Thessaly. Of the northern coast, the island of Ithaca is part of the Dolopes archipelago (with islands also belonging to Euboea and Chalcidice).

The Arcadians are blessed with a land that is very rich in natural resources. Off the northern coast, there is the world's largest combined fishing and oil resource area. Arcadia shares the offshore resources with both Thrace and Chalcidice. To this point, there has always been plenty to satisfy the needs of all three countries. There is also a fair sized oil field within Arcadian territory in the northeast. In the southeast, the Zacynthos territory is heavily concentrated with mineral wealth. Off of the west coast, there are even more fishing waters, which Arcadia again shares with Euboea. South of Argos there is another minor mineral deposit.

Arcadia has a King and Queen, but they have long since ceded political power to a prime minister and a parliament. Thus, the rest of the system views Arcadia as a democracy, and for all intents and purposes it is. Socially, Arcadia is remarkably stable, although there have been some problems incorporating the territory and people of Zacynthos in the south. This land had traditionally belonged to Messina, but it was ceded to Arcadia as a reward for helping Messina and Caria in their war against Thrace some years ago.

Although thankful for Arcadia's help, some nationalist elements in Messina argue that "giving away" Zacynthos was not a wise idea.

EPIRUS

Epirots

Epirus is the smallest state in the system. It is located to the south of Arcadia and in between the states of Messina and Thessaly. The country is divided into a northern mainland and a fair-sized southern island. In the north and east the country is essentially a swamp that is bounded by the Great Sardis River. The rest of Epirus is rugged and not conducive to agriculture. The second city of Epirus, Leucas, is situated on a huge hill overlooking the river, and the lands of Arcadia and Messina beyond. The small Dodonas Mountains sit on the border with Messina in the southeast. In the northwest, the Olympian mountains spill across the border from Arcadia and Thessaly. The Epirot capital of Corcyra is situated on the southern island that bears the same name.

In addition to its small size, Epirus has traditionally been limited by a general lack of natural resources. With the exception of a small oil field in the southwest and off the southern coast, Epirus has no resource base to speak of. That said, the Epirots have begun to access the fishing waters off the southern coast of Corcyra, and have also established a presence in the resource rich land of Sporades to the far south.

Much of this expansion has been a result of the ambition and determination of the new "Emperor of the Epirots." This new leader has achieved almost god-like status in the country by making grand plans for Epirus to become the crown jewel of the international system. The citizens of the country are so desperate for a strong leader that they have given the Emperor a virtual "carte blanche" to pursue his grandiose vision for the country. While somewhat alarmed by these recent developments, the neighboring countries of Messina, Arcadia and Thessaly have become so accustomed to pushing Epirus around that they are hardly concerned at all for their own national security.

THESSALY

Thessalians

Thessaly occupies the southwest corner of the map, and is divided into two parts; the mainland and the island of Magnesia. The two pieces of Thessaly are separated by the Thermaic Straights, long a key part of the trade routes between the northern and southern states in the system. There are three cities in Thessaly: Pharsulus (the capital), Crannon and Larissa. Pharsulus is located at the northern tip of the Gyrton plains, which cover most of the country. In the northeast corner of the country, the Olympian mountains stretch into Thessaly from Arcadia and Epirus. Crannon is on the southeastern coast, opposite the Epirot island of Corcyra, and to the north of the Ossa

Mountains, which dominate the southern regions of Thessaly. Larissa – the third city of Thessaly – is located on the island of Magnesia, and faces the still virgin lands of Sporades to the south. Magnesia has a small range of unnamed hills that serve as a rough divider between the northern and southern parts of the island.

Magnesia also has significant mineral deposits. Coupled with the oil resources in the east of the country, the natural resources present in Thessaly are quite sufficient for the mostly rural economy. Fishing waters are abundant off the southeastern coast of the country, although recent competition from Epirot fisherman has lowered the catch somewhat. Although Sporades is just to the south, there is no immediate need for Thessaly to seek out an additional resource base. This could change if the economy develops.

Like Epirus to the east, Thessaly has an Emperor. Although much less ambitious and dynamic than her Epirot counterpart, the Thessalian leader still rules with an iron fist and despises the recent calls for some form of democratization in her country. To this point, any pro-democracy rallies have been ruthlessly suppressed. The Emperor has threatened other states with retaliatory action if they support the nascent democratic movements that are growing in her country. Though she has not been specific in outlining what form this retaliation would take, some worry that Thessaly might close the Thermaic Straights, thus shutting off the northern countries from the vast resources of Sporades.

MESSINA

Messinites

Messina is located in the south. The weather is largely pleasant, although the summers can be quite hot in the far south of the country. Like Arcadia, Messina has been somewhat of a civilizational crossroads for quite some time. The country is bordered by Caria to the east, Thrace and Arcadia to the north, and Epirus to the west. The capital city of Ithome lies on the far southern branch of the Great Sardis River, across from its twin city of Ephesus in Caria. The northern boundary with Thrace is indicated by the main branch of the river, as well as the mountains of the Pindus Range. The Sardis River forks and then reconnects along the Messinite border with Arcadia. The land in between the forks of the river – known as Zacynthos – has historically belonged to Messina, but it is currently within the legal boundaries of Arcadia. The eastern border of Messina is marked by the southern branch of the Pindus Range, which separates the country from the lands of Caria. The central portion of the country is characterized by fertile farmland, and a temperate climate. The port city of Pylos is located in the southwestern corner of Messina, and is a valuable trading center for all of the southern states. It is certainly a multiethnic city, although crime is rampant and high culture is not.

Messina is well known for its mineral wealth in the north of the country. Much of the mineral wealth has been lost, however, with the transfer of Zacynthos to the country of Arcadia. Off the southern coast, there is a large

fishing area, and significant oil fields. Further south, the lands of Sporades have also traditionally supplied Messinites with more oil, as well as mineral riches. Recently, Epirus has also begun to reap the advantages of proximity to these resources, and there is some worry that the extraction rate of oil, fish and minerals of the south is rising too quickly.

Messina had a long history with a series of "benevolent" dictators, the last of which abdicated power with the purpose of allowing the Great Democratic Experiment to begin in Messina. Since that time, Messina has indeed operated democratically, despite frequent attempts by some of the former dictator's advisors to grab dictatorial power themselves. Surprisingly, there is considerable public support for a return to an authoritarian state, as Messina's greatest successes came under the direction of singular leaders. Specifically, all of the land north of the south branch of the Great Sardis River was gained when a previous dictator launched a successful attack on Thrace. After that war, the democrats came to power and promptly "gave away" the valuable lands of Zacynthos to the Arcadians. Thus, in Messina, democracy is often associated with weakness.

CARIA

Cariots

The medium-sized country of Caria is at the far southeastern corner of the map. It is a hot and desolate country in the south, and a tropical and lush land

in the north. The south branch of the Great Sardis River cuts east to west across the middle of the country, and is the dividing line between climate zones. In The northern boundary of Caria is marked by the main branch of the Sardis River, beyond which lies the lands of Thrace. Miletus is the major city in north central Caria, and is indeed the largest city in the world. The sprawling metropolis has exploded with growth in recent years. Despite the increase in economic activity that this brings, Miletus has grown so quickly that there is concern about lawlessness and poverty. To the southwest of Miletus is the capital of Caria, Ephesus, which is the twin city to Ithome in Messina. In the far southwest of the country (just south of the Pindus Range) is Rhodes, which was the first city in Caria. Over the years, Rhodes has been surpassed by Miletus in terms of population and economic importance, but Rhodes is still an important cultural center, and is also a major distribution center for Caria's unbelievable oil reserves.

In fact, Caria's only real natural resource is oil. The oil in the southeast of the country and off the coast represents by far the largest reserves in the world. Caria retains exclusive rights to these oil reserves, and generates almost 90% of its GDP from the sale of "Sweet Carian Crude." Caria has attempted to expand its oil reserves to include the large fields along the Hermus River in Sporades, but these attempts have been forcefully (and successfully) resisted by "barbarians" based in the ramshackle town of Skyros.

Caria is a very religious country. In fact, political leadership has long been assumed by the state-sponsored church. This has long been a source of conflict with less-religious countries, as well as countries that espouse different religious beliefs than those that are held by Cariots. Some times, these religious differences have boiled over (Caria joined Messina at one point to attack Thrace), but for the most part, international reliance on Carian oil has forced other states to accept Caria's stance on religion.

ROLE DESCRIPTIONS AND OBJECTIVES

Each country has one Chief Decision Maker (CDM), Diplomat (DIP), Economic Advisor (ECA), Opposition Leader (OPP) and Intelligence Officer (INT). In isolated circumstances, it may be the case that your country has more than one member playing these roles. The following section discussed some of the key responsibilities and individual objectives of each position.

Chief Decision Maker: The CDM must approve of any action taken by countries in this game. If the CDM leads a democracy, their signature must be accompanied by at least two more signatures from other members in order for an action to be taken. If the CDM leads a non-democracy, their signature alone is sufficient for action. Although CDMs play the most important role in terms of approving states' actions, they will have very little official contact (in

class) with officials from other states. The exception would be their participation in a multinational summit with other CDMs. For the most part though, CDMs will be the key player in any internal discussions a country might have.

The individual objectives of CDMs in all countries are twofold: First and foremost, they hope to stay in power (see Regime Change in the Rules and Guidelines Section). Second, they should try to have their state earn as many Territorial Objective Points as possible. Out of the CDMs that remain in power for the entire game, the one that leads a state with the most Territorial Objective Points will be the individual CDM winner.

Diplomat: The DIP will be extremely active in classroom negotiations. In fact, they are the only member of the government that can meet face to face with DIPs from other states. Any member of your country can deliver written messages to the World Council, but DIPs will conduct all personal negotiations in class. If you are a DIP, you will constantly be trying to convince other DIPs to sign your proposed treaty or agreement, to go to war against a common foe, to join your country in a defensive coalition etc. You are the voice of your country. In addition, you will play a key role in any internal debates your country may have.

The individual objective of all DIPs is to help their state achieve as many Diplomatic Objective Points as possible. At the end of the game, the DIP

whose country has scored the most Diplomatic Objective Points will be crowned individual DIP winner.

Economic Advisor: ECAs are in charge of keeping track of the factor allocation and distribution of your country. They are also responsible for keeping track of the Objective Points that your country has achieved. At the very beginning of class, the ECA will submit an action form to the World Council that outlines your factor distribution and the Objective Points you have achieved. Be careful! Any miscalculations will result in a penalty from the Council. In especially frantic times, the ECA may play the role of 2nd Diplomat, in order to keep up with incoming and outgoing communication.

ECAs will be active in decisions regarding the distribution of factors each turn. This is primarily because their individual objective is to lobby for their country to devote as many factors as possible to industry rather than military, welfare or special action spheres. In the end, the individual ECA winner will be the individual who has convinced their state to devote the greatest percentage of their factor allocation (over the course of the entire game) to the industrial sphere.

Opposition Leader: The OPPs main role in class will be to balance the power of the CDM. This is especially the case in non-democracies, where CDMs have a monopoly on decision-making power. During the factor distribution phase, the OPP will lobby for the devotion of factors to the welfare sphere.

The OPP should feel free to blackmail other members of the government in order to achieve this goal. Specifically, the OPP should threaten to divulge your state's secret objectives to intelligence officers (INTs) from rival states – if there is not sufficient factor distribution to the welfare sphere. Email communication between OPPS and INTs from rival states should be interesting indeed!

The individual objective of the OPPs is twofold: First, they should always try to achieve regime change, so that they assume the position of CDM. In addition, the OPP should try to lobby for their country to devote as many factors as possible to welfare rather than military, industrial or special action spheres. In the end, the individual OPP winner will be the OPP that is able to achieve regime change and assume control of the country as CDM. In the event that no OPP, or more than one OPP achieves this primary goal, the "tiebreaker" will be the OPP who has convinced their state to devote the greatest percentage of their factor allocation (over the course of the entire game) to the welfare sphere.

Intelligence Officer: The INT's role changes greatly inside and outside of class. In class, the INT will in essence be the propaganda officer. She will read your public announcement out loud at the beginning of class, and will also actively participate in any internal debates your country may have. Outside of class, however, is when the INT really does the dirty work. Using email contact (remember that you should "Cc" brock.tessman@colorado.edu),

the INT should try to solicit secret state objectives from disgruntled Opposition Leaders in rival states. You can "buy" this information from OPPS by pledging to aid them in their attempt to achieve regime change. For example, during your next propaganda announcement (or via a mass email), you might choose to slander the existing CDM in the OPP's country, in order to convince the other members of their country that a new leader needs to be instated in order to facilitate negotiations with your and other state(s). This information will give the INT's country a strategic edge in negotiations with other states, because they will know what those countries are trying to achieve, and perhaps how much each objective is valued. Beware, however, of clever states that get their OPPs to feed you bad information!

The individual INT winner will have garnered the most **reliable** secret objectives from OPPs in other states.

INITIAL FACTOR ALLOCATION

Chalcidice = 478 Factors

Thrace = 972 Factors

Euboea = 1654 Factors

Arcadia = 2217 Factors

Messina = 2066 Factors

Caria = 1494 Factors

Thessaly = 655 Factors

Epirus = 464 Factors

CLASSROOM SCHEDULE / PROCEEDINGS

(75 MINUTES TOTAL) – THIS SCHEDULE WILL BE FOLLOWED STRICTLY!

Minutes 0-5 (Organize): Organize classroom into distinct territories, meet and greet your teammates and discuss briefly any relevant issues. Factor distributions must be completed and submitted to the World Council now.

Minutes 5-25 (Propaganda): Intelligence Officers all enter the neutral zone at the front of the room, and then have exactly 2 minutes each to announce their country's factor distribution (which must match the distribution states on the already submitted action form) and to give a brief propaganda speech. This speech should attempt to sway international opinion in your favor. Humor is encouraged. Honesty is not.

Minutes 25-55 (Negotiation): Intra-State and Inter-State Negotiation is conducted during this time. Inter-State communication is governed by the rules outlined in the "Rules and Guidelines Section." This time should be used to formalize any agreements, actions or announcements that were made

outside of class, to develop and formalize new agreements, actions or announcements and also to lobby for military allies in case a declaration of war is also being formulated. AT THE END OF THIS TIME PERIOD, ALL PAPERWORK, WITH ALL REQUIRED SIGNATURES MUST BE SUBMIMTTED TO THE WORLD COUNCIL, INCLUDING ANY DECLARATIONS OF WAR!!!

Minutes 55-65 (Resolutions): The World Council will announce any agreements, actions or announcements that have been successfully formalized. After this is done, the World Council will announce any declarations of war, including the attacking state(s), the target state(s), the stated goal of the war, and the total military factors the attacking state(s) are devoting to the war.

Minutes 65-70 (Coalition Building): Any states that are targeted by a declaration of war have these 5 minutes to formally submit their surrender or resistance to the declared war. If surrender is the chosen option, the goal of the attackers is achieved. If the target state(s) choose to resist, they also have these 5 minutes to appeal to other states to join a defensive coalition. These appeals must take place via established communication protocol. Multinational summits or public announcements can be proposed in order to reach a wider audience. By the end of the time period, the target(s) must submit an action form outlining the state(s) who will oppose the attacking state(s) and the total military factors devoted to the war.

Minutes 70-75 (Wrap-up): The World Council announces all pending wars, including the attacking and defending state(s) as well as the "balance of factors" for each side.

Note: By 9 p.m. following class, the World Council will release a newsletter describing the outcome of any wars, summarizing the formalized events of the day, and announcing each country's factor allocation for the next turn. This will allow at least one day for countries to discuss strategy for the next class.

CHALCIDICE

COUNTRY OBJECTIVES

The primary goal of your country is to achieve as many of the following objectives as possible. Objectives are grouped into three categories: Diplomatic, Economic and Territorial. Each objective has a point value attached to it, which represents the relative importance of that objective to your country. Typically, more valuable objectives will be more difficult to achieve. Goals may be achieved using any means (political or economic pressure, military attack etc.), but the final decision regarding successful achievement will rest with The World Council. Partial achievement of objectives will result in partial credit given to that country.

Important: Achievement of objectives that go above and beyond those below is encouraged. Points for these objectives will be assigned on a case-by-case basis by the World Council. Be creative, and achieve whatever you can! Be aware, however, that the achievement of listed objectives will be - "pound for pound" - awarded much more handsomely than those you create yourselves.

Diplomatic Goals:

(10 points) Convince Thrace to join you in shutting down the Pella Canal to all foreign shipping, so that only your two countries have access to the resource-rich lands of Cyclades. You must also convince Thrace to deny other states' access to Cyclades via the narrow waterway along their east coast. They can do this by refusing to use their icebreaking ships to create a corridor for safe passage through that area. No other countries have the necessary icebreakers.

(5 points) Work with Euboea to subdue the trouble-making Toronado ethnic group that is active in your southwest. Since the Toronados are present in Chalcidice and Euboea, **both** countries will need to dedicate 200 factors each to this effort for three consecutive turns.

Economic Goals:

(10 points) Get both Arcadia and Thrace to recognize your sole right to fish the abundant waters of squares J11, K11, L11, J12 and K12. Presently, you share these waters with these countries.

(5 points) Some countries have tried to pressure you into signing the World Commerce Organization (WCO) protocol, which would stipulate that all countries have open access to the markets and resources of all other countries. You think that this is a ploy developed by resource-poor states to guarantee

access to oil, fish and minerals that aren't rightfully theirs. If you do not sign the WCO protocol, and can convince at least one other state to join you as a non-signatory, you achieve this objective. If you sign, but manage to get the WCO protocol changed to only ensure open markets (but not open access to all resources) then you will get partial credit.

Territorial Goals:

(10 points) Claim all of Cyclades for your country, and deny access to its territory and resources to all other countries. Your claim on Cyclades can be enforced diplomatically or militarily. The initial occupation of the territory will require the devotion of 500 factors to a military operation against the barbarians. These 500 factors must be spent - and the operation must take place – during a single turn.

(5 points) Maintain control over your island of Mende in the Dolopes Archipelago. It is vital to your strategic position and security in the south.

THRACE:

COUNTRY OBJECTIVES

The primary goal of your country is to achieve as many of the following objectives as possible. Objectives are grouped into three categories: Diplomatic, Economic and Territorial. Each objective has a point value attached to it, which represents the relative importance of that objective to your country. Typically, more valuable objectives will be more difficult to achieve. Goals may be achieved using any means (political or economic pressure, military attack etc.), but the final decision regarding successful achievement will rest with The World Council. Partial achievement of objectives will result in partial credit given to that country.

Important: Achievement of objectives that go above and beyond those below is encouraged. Points for these objectives will be assigned on a case-by-case basis by the World Council. Be creative, and achieve whatever you can! Be aware, however, that the achievement of listed objectives will be - "pound for pound" - awarded much more handsomely than those you create yourselves.

Diplomatic Goals:

(10 points) Convince Chalcidice to join you in shutting down the Pella Canal to all foreign shipping, so that only your two countries have access to the resource-rich lands of Cyclades via this route.

(5 points) Make sure that the fishing waters and oil resources off your west coast remain open for the surrounding countries to access. Specifically, get Arcadia and Chalcidice to agree that squares J11, K11, L11, M11, J12, K12, M12, N12, K13, L13, M13 and N13 will be kept open to Thrace, Arcadia and Chalicidice.

Economic Goals:

(10 points) Convince Caria to engage in an economic agreement that would serve both your needs: Thrace would send a portion of its fish catch to Caria in return for the right of Thrace to access some of Caria's oil. To achieve this objective in its entirety, you must convince the Cariots to restrict foreign access to their oil fields to Thracon only. They must not enter any agreements that grant oil access to states beside Thrace.

(5 points) To ensure a satisfactory fish catch, and also to maintain access to the rich mineral lands in the east of your country, you must always keep the

waters off your eastern coast free of ice. Only you have the proper icebreaking ships to accomplish this task.

Territorial Goals:

(10 points) Use whatever means possible to regain ***one of the following*** pieces of land:

A) In Messina, all of the land north of the far southern branch of the Great Sardis River, NOT including the Messinite capital of Ithome. Specifically, squares N17, O17, P17, N18, O18, P18, N19 and O19 must be ceded from Messina to Thrace. This is land taken from Thrace in an earlier war, which was initiated by Messina.

OR

B) In Caria, all of the land north of the far southern branch of the Great Sardis River, NOT including the Cariot capital of Ithome. Specifically, squares Q17, R17, S17, T17, Q18, R18, S18, T18, R19, S19 and T19 must be ceded to Thrace from Caria. Caria joined Messina in attacking Thrace some years ago, and took this land as part of the war settlement.

(5 points) Keep any one country from successfully occupying the resource-rich lands of Cyclades. This can be accomplished diplomatically, or through

the threat or use of military force against any country that attempts to claim Cyclades solely for its own use.

EUBOEA

COUNTRY OBJECTIVES

The primary goal of your country is to achieve as many of the following objectives as possible. Objectives are grouped into three categories: Diplomatic, Economic and Territorial. Each objective has a point value attached to it, which represents the relative importance of that objective to your country. Typically, more valuable objectives will be more difficult to achieve. Goals may be achieved using any means (political or economic pressure, military attack etc.), but the final decision regarding successful achievement will rest with The World Council. Partial achievement of objectives will result in partial credit given to that country.

Important: Achievement of objectives that go above and beyond those below is encouraged. Points for these objectives will be assigned on a case-by-case basis by the World Council. Be creative, and achieve whatever you can! Be aware, however, that the achievement of listed objectives will be -

"pound for pound" - awarded much more handsomely than those you create yourselves.

Diplomatic Goals:

(10 points) Euboea is – above all else – a trading nation. To achieve your primary economic objective, you must ensure the following:

A) The Pella canal between Thrace and Chalcidice remains open to shipping traffic from all states.

B) The Thermaic straights – the narrow sea-lane between the Thessalian island of Magnesia and Thessaly itself – remain open to shipping traffic from all states.

C) The Great Sardis River remains open and navigable for ships that use it as a commercial waterway.

(5 points) Convince the country of Caria to issue a formal announcement that they are adopting a policy that politically separates the church and state. In order to achieve this goal, however, you must ensure that Caria does not cut Euboea off from its vast oil supplies. If they do, you will receive no points, regardless of the success you achieve in convincing them to separate church and state.

Economic Goals:

(10 points) As part of your effort to promote free trade throughout the system, you have been trying to create a World Commerce Organization (WCO). The WCO would force all member states to open their markets and resources to foreign competition and investment. You believe that this will benefit all countries involved, but not everyone agrees. You want so convince (or compel) as many countries as possible to formally sign the WCO protocol. You will receive points based on the signatures that you obtain.

Chalcidice = 1 point

Messina = 1 point

Epirus = 1 point

Thessaly = 1 point

Caria = 2 points

Thrace = 2 points

Arcadia = 2 points

Total = 10points

Note: The WCO protocol calls for all member states to maintain open access to markets **and** resources. If you wish, you can modify the protocol to call for only one of those two provisions (i.e. open markets OR resource access). Doing this reduces the point value for each signatory by 50%. For example,

getting Thessaly to sign would now garner you ½ a point instead of 1, while getting a Cariot signature earns you 1 point instead of 2.

(5 points) Expand exploration and economic use of both Cyclades and Sporades. This action requires that you devote 300 factors for three consecutive turns to this effort, as well as ensuring that you have continuous access to these lands during the action (i.e. for the three turns you undertake this action)

Territorial Goals:

(10 points) Take full control over the Dolopes Archipelago. Specifically, you must use whatever means necessary to convince or compel Chalcidice and Arcadia to cede full and sole political and economic control over squares G11, H11, I11 and H12.

(5 points) Assume full political and economic control over the Thessalian island of Magnesia to your south.

ARCADIA

COUNTRY OBJECTIVES

The primary goal of your country is to achieve as many of the following objectives as possible. Objectives are grouped into three categories: Diplomatic, Economic and Territorial. Each objective has a point value attached to it, which represents the relative importance of that objective to your country. Typically, more valuable objectives will be more difficult to achieve. Goals may be achieved using any means (political or economic pressure, military attack etc.), but the final decision regarding successful achievement will rest with The World Council. Partial achievement of objectives will result in partial credit given to that country.

Important: Achievement of objectives that go above and beyond those below is encouraged. Points for these objectives will be assigned on a case-by-case basis by the World Council. Be creative, and achieve whatever you can! Be aware, however, that the achievement of listed objectives will be - "pound for pound" - awarded much more handsomely than those you create yourselves.

Diplomatic Goals:

(10 points) Arcadia is convinced that warfare is the scourge of mankind. It is your mission to eliminate it as a social process. Toward this end, your country

has developed (with a little input from the Epirots) a proposal for the Aetolian Peace Community (APC). It is up to you to outline the requirements for membership in the APC, but a successful APC charter will certainly contain the following provisos:

A) The renouncement of military aggression as a mode of conflict resolution

B) A non-refundable "membership contribution" of no less than 200 factors PER TURN PER MEMBER

C) A binding agreement to come to the military defense of any member that is attacked by any country in the system.

Beyond these necessary requirements, it is up to you – the Great Arcadians – to determine exactly what membership will entail. If the APC has a membership of at least 5 countries for any two full, consecutive turns, you will have achieved this objective. Partial credit for partial achievement will be considered.

(5 points) You claim that your capital city, Matinea, is the oldest city in the world, and you want to build a monument of unprecedented size in order to commemorate the founding of the city. You want this monument to symbolize the role of Matinea as the "birthplace of civilization." You can build such a monument yourself for a one time fee of 800 factors, or you can enlist the cooperation of other states to make it a truly international landmark. If you, and every other state, agree to contribute 100 factors toward this project, you

will achieve this objective. In addition, all states will have to sign a document that declares Matinea, Arcadia as the birthplace of civilization. If international participation is impossible, you can build the monument by yourself (by spending 800 factors over any span of time) and you will receive 2 out of 5 points.

Economic Goals:

(10 points) As part of your effort to promote free trade throughout the system, you have been trying to create a World Commerce Organization (WCO). The WCO would force all member states to open their markets and resources to foreign competition and investment. You believe that this will benefit all countries involved, but not everyone agrees. You want so convince (or compel) as many countries as possible to formally sign the WCO protocol. You will receive points based on the signatures that you obtain.

Chalcidice = 1 point

Messina = 1 point

Epirus = 1 point

Thessaly = 1 point

Caria = 2 points

Thrace = 2 points

Euboea = 2 points

Total = 10points

(5 points) Expand exploration and economic use of both Cyclades and Sporades. This action requires that you devote 200 factors for three consecutive turns to this effort, as well as ensuring that you have continuous access to these lands during the action (i.e. for the three turns you undertake this action)

Territorial Goals:

(10 points) Rewarding your support in the last Thracon-Messinite War, Messina granted you the Zacynthos – the land between the north and south fork of the Great Sardis River (squares L17, M17, L18, M18). Recently, Messina has made some overtures about asking for that land back. You are naturally against the idea, and would like to retain this region. If you succeed in doing so, you will receive full credit for this objective. If you retain any 3 out of 4 squares, you will receive 6 points. Retaining any 2 out of 4 squares garners you 4 points. 1 out of 4 squares earns you 2 points. If Messina regains control of the region, you will receive no points.

(5 points) Take full control over the Dolopes Archipelago. Specifically, you must use whatever means necessary to convince or compel Chalcidice and

Euboea to cede full and sole political and economic control over squares H10, G11, H11 and I11.

EPIRUS

COUNTRY OBJECTIVES

The primary goal of your country is to achieve as many of the following objectives as possible. Objectives are grouped into three categories: Diplomatic, Economic and Territorial. Each objective has a point value attached to it, which represents the relative importance of that objective to your country. Typically, more valuable objectives will be more difficult to achieve. Goals may be achieved using any means (political or economic pressure, military attack etc.), but the final decision regarding successful achievement will rest with The World Council. Partial achievement of objectives will result in partial credit given to that country.

Important: Achievement of objectives that go above and beyond those below is encouraged. Points for these objectives will be assigned on a case-by-case basis by the World Council. Be creative, and achieve whatever you can! Be aware, however, that the achievement of listed objectives will be -

"pound for pound" - awarded much more handsomely than those you create yourselves.

Diplomatic Goals:

(10 points) You are a small country, but you feel like you should still have your fair share of influence in the international system. With this in mind, Epirus recently shared with Arcadia a plan that you had developed to develop an international organization to promote peace.

You were very upset, then, when the Arcadians took credit for developing the idea in the first place – claiming that your country only "gave some input" along the way.

The Arcadians have now developed a plan for the APC – the Aetolian Peace Community. You want no part of this organization, and you are instead developing plans for an alternative organization that will no doubt outshine the APC.

Develop a name for your organization, and a charter which outlines the requirements and responsibilities of membership. The content is up to you, as long as the following conditions are met:

A) The organization is a defensive alliance that binds all members to militarily protect the territorial integrity of member states

B) No member of your organization may be a member of the APC. The two groups will be mutually exclusive.

If you can enlist at least four states to sign your charter and become members of your organization for at least two consecutive, full turns, you will have achieved this objective.

(5 points) Due to ancient ethnic ties, you have an interest in allowing the Toronados to remain a vital minority in both Euboea and Chalcidice. Try to convince these countries not to crack down on the Toronados. If they ignore your plea, you can ensure the vitality of the Toronados by donating more factors to the Toronados than BOTH Chalcidice and Euboea.

Economic Goals:

(10 points) As part of your effort to become an important player in the international system, you have joined other states in the effort to promote free trade throughout the system. Together, you have been trying to create a World Commerce Organization (WCO). The WCO would force all member states to open their markets and resources to foreign competition and investment. You believe that this will benefit all countries involved, but not everyone agrees. You want so convince (or compel) as many countries as possible to formally sign the WCO protocol. You will receive points based on the signatures that you obtain.

Chalcidice = 1 point

Messina = 1 point

Arcadia = 1 point

Thessaly = 1 point

Caria = 2 points

Thrace = 2 points

Euboea = 2 points

Total = 10points

(5 points) One specific gripe you have regarding free access to resources is with Thessaly and Messina. They have been complaining about the recent addition of Epirot fishing vessels to the waters south of your three countries (squares F25, G25, H25, I25, J25, K25, L25, M25, N25 and O25). Both Messina and Thessaly claim that you have been over-fishing the waters, and that you need to remove your boats. You disagree, and think that everyone should have access to these waters. If you convince or compel Thessaly and Messina to accept your presence in these squares, you will score full points. If you can keep your presence in any 5 squares, you will receive 2 points out of 5.

Territorial Goals:

(10 points) As a first step toward making Epirus the "crown jewel" of the international system, it is necessary to gain reliable access to natural resources. Toward this end, your objective is to claim Sporades as Epirot territory. Although other countries may still access the resources there, this privilege may be revoked at your discretion. Although you believe in free

trade and open markets, you should not be forced to allow your enemies to access lands that are rightfully yours! Politically, the "Emperor of the Epirots" will assume control over the region, and it will officially be incorporated into Epirus.

Subduing the barbarians in this region will require an initial devotion of 400 factors, but you may also be required to defend your new territory in the future, from both barbarians and other states in the system.

If need be, you can convince one other state to help you control and defend Sporades. You will receive 7 out of 10 points for this objective in such a case.

(5 points) You are worried that Messina might threaten you if they grow too strong. If they are successful in re-acquiring Zacynthos (squares L17, M17, L18 and M18), it could be the first step in a territorial expansion that would come at your expense. Keep Messina from acquiring Zacynthos, and you will get five points.

THESSALY

COUNTRY OBJECTIVES

The primary goal of your country is to achieve as many of the following objectives as possible. Objectives are grouped into three categories:

Diplomatic, Economic and Territorial. Each objective has a point value attached to it, which represents the relative importance of that objective to your country. Typically, more valuable objectives will be more difficult to achieve. Goals may be achieved using any means (political or economic pressure, military attack etc.), but the final decision regarding successful achievement will rest with The World Council. Partial achievement of objectives will result in partial credit given to that country.

Important: Achievement of objectives that go above and beyond those below is encouraged. Points for these objectives will be assigned on a case-by-case basis by the World Council. Be creative, and achieve whatever you can! Be aware, however, that the achievement of listed objectives will be - "pound for pound" - awarded much more handsomely than those you create yourselves.

Diplomatic Goals:

(10 points) There has been some talk of the creation of an international organization (for one, the Arcadians are rumored to be proposing an Aetolian Peace Community, or APC) that would promote peaceful relations between countries. You are constantly worried about your own security, and would like to become a member of such an organization if its members would pledge to protect you if you were attacked. The roster of members in such an organization is of the utmost importance to you. While you don't think that something like the APC would be worthwhile with less than 6 members, you

are also staunchly opposed to the admission of Caria into any peace organization in which you are part. This is not because the Cariots are particularly aggressive toward other countries. Rather, it is out of objection to their inability to separate religion from politics in their country.

If you can join an international peace organization with at least 6 members, but not Caria, you will receive full credit. You will also receive full credit if Caria is a member, but they have publically and officially announced that they are no longer a theocracy (a state ruled immediately under the direction of God).

(5 points) You feel that democracy is a failed social experiment. You are specifically abhorred by the notion that one of your traditional authoritarian partners, Messina, has recently undergone a democratic revolution. You know that there is popular sentiment within Messina to return to the "glory days" when they had fearless and strong leaders who would get things done without the nit-picking that is inherent in democratic participation. If you can convince Messina to return to its status as a dictatorship, you will achieve this objective. For your part in supporting this regime change, you will have to make a one time expenditure of 250 factors.

Economic Goals:

(10 points) Some countries have tried to pressure you into signing the World Commerce Organization (WCO) protocol, which would stipulate that all

countries have open access to the markets and resources of all other countries. You think that this is a ploy developed by resource-poor states to guarantee access to your mineral deposits that aren't rightfully theirs. If you do not sign the WCO protocol, and can convince at least two other states to join you as a non-signatory, you achieve this objective. If you sign, but manage to get the WCO protocol changed to only ensure open markets (but not open access to all resources) then you will get partial credit.

(5 points) At the present, Arcadia and Euboea exclude you from the fishing waters off your northern coast (above Pharsulus – squares F16, E17, F17, E18 and F18). This has not been a problem in the past, but the fact that Epirus has started fishing the waters south of your country means that there are starting to be some fish shortages. To meet this objective you must:

A) Convince Epirus to stop fishing in squares F25, G25, H25, I25, J25 and K25.

OR

B) Convince Euboea and Arcadia to allow you to fish the waters off your northern coast.

Territorial Goals:

(10 points) Your land is seemingly always being eyed by other powers. Maintain the political and economic integrity of your territory. If you decide to, or are forced to cede any territory or resources to another state, you will

lose points here, according to the World Council's decision regarding the severity of the loss.

(5 points) Sporades should not be controlled by any single country. Although you do not need the resources in this region to support your own limited economy, you do have an interest in preventing any one state from taking control of Sporades. If you can prevent this from happening, you will get full points here.

MESSINA

COUNTRY OBJECTIVES

The primary goal of your country is to achieve as many of the following objectives as possible. Objectives are grouped into three categories: Diplomatic, Economic and Territorial. Each objective has a point value attached to it, which represents the relative importance of that objective to your country. Typically, more valuable objectives will be more difficult to achieve. Goals may be achieved using any means (political or economic pressure, military attack etc.), but the final decision regarding successful achievement will rest with The World Council. Partial achievement of objectives will result in partial credit given to that country.

Important: Achievement of objectives that go above and beyond those below is encouraged. Points for these objectives will be assigned on a case-by-case basis by the World Council. Be creative, and achieve whatever you can! Be aware, however, that the achievement of listed objectives will be - "pound for pound" - awarded much more handsomely than those you create yourselves.

Diplomatic Goals:

(10 points) You see yourself as somewhat of a leader among the "southern four" countries of yourself, Thessaly, Epirus and Caria. In general, you have nothing against the northern countries, but you feel like they are extracting resources in Sporades that rightfully belong to the southern states, owing to geographical proximity. The northern states have the lands of Cyclades to satisfy their resource needs, and sometimes you feel that they have a presence in Sporades just to spite you and your southern neighbors.

You want Sporades to remain an open territory – for the "southern four" only. To meet this objective, you need to do the following:

A) Convince Thessaly (and support them in this cause if necessary) to use their control of the island of Magnesia and their own mainland to shut down the Thermaic Straights to northern shipping traffic.

B) You must also convince Thrace to issue a statement renouncing rights to any of the territory or resources on Sporades

C) Make sure that all four of the southern countries agree to keep Sporades an open territory, to be explored and exploited amongst yourselves.

(5 points) Eventhough Rhodes is not in your country (it is in Caria), you feel that it is more worthy of receiving the distinction of "the birthplace of civilization" than is any other city. Plus, having a southern city honored in such a way would surely show the northerners that they can no longer scoff at the cultural achievements of the south. Suggest to Caria that you construct a monument in Rhodes that signifies its greatness. The cost of such a monument will be 1000 factors, and you can finance its construction any way you like; via solicitations of donations from other states, through a partnership with Caria, or all by yourself.

Economic Goals:

(10 points) The Great Sardis River is the lifeblood of your northern territories. Still, it often swells out of control in two areas – south of the Zacynthos and also in the northeast, where it often floods the mining towns that are scattered throughout the Pindus Mountain Range. To remedy this situation, you are planning to build a pair of dams at these two parts of the river. These dams will regulate the flow of the river, and will also give you control of the commercial shipping that uses the Sardis waterway. This would put give Messina a lot of economic leverage vis-à-vis other states.

Convince the affected countries – Arcadia, Thrace and Caria – to sign an agreement that allows you to build this dam. In addition, you must pay – on

two consecutive turns - 500 factors per turn in order to complete this massive project. If these requirements are met, you will earn 10 points! If you get 2 out of 3 countries to sign, and also make the payments, you will receive 6 points.

(5 points) To bolster your oil reserves, you would like to gain privileged access to some "Sweet Carian Crude" oil to your east. To this point, however, Caria has kept foreigners out of their oil fields. Strike a bargain with Caria to gain access to their oil. If you can gain access in exchange for some of your mineral deposits, you will have achieved this objective.

Territorial Goals:

(10 points) It was a bad idea to give away the Zacynthos region between the north and south forks of the Great Sardis River. Your primary goal is to regain this territory from Arcadia. You can use whatever means necessary to convince or compel your neighbors to the north. Specifically, you will need to reincorporate squares L17, M17, L18 and M18 into Messina in order to achieve this objective. If you can negotiate for at least some portion of this territory to be returned to your country, you may receive some partial credit.

(5 points) Although Arcadian support in your war against Thrace cost you the Zacynthos, your victory in that war did result in the annexation of all the land between the main and southern branches of the Great Sardis River for you and

the Carians, who were your allies at the time. You have benefited greatly from this additional land and the mineral resources it has yielded. Thrace has made an appeal to you to return this land to them as a symbol of the current peace between your two countries. You are intent, however, on keeping this territory (squares N17, O17, P17, N18, O18, P18, N19 and O19) and you will achieve this objective if you do so!

CARIA

COUNTRY OBJECTIVES

The primary goal of your country is to achieve as many of the following objectives as possible. Objectives are grouped into three categories: Diplomatic, Economic and Territorial. Each objective has a point value attached to it, which represents the relative importance of that objective to your country. Typically, more valuable objectives will be more difficult to achieve. Goals may be achieved using any means (political or economic pressure, military attack etc.), but the final decision regarding successful achievement will rest with The World Council. Partial achievement of objectives will result in partial credit given to that country.

Important: Achievement of objectives that go above and beyond those below is encouraged. Points for these objectives will be assigned on a case-

by-case basis by the World Council. Be creative, and achieve whatever you can! Be aware, however, that the achievement of listed objectives will be - "pound for pound" - awarded much more handsomely than those you create yourselves.

Diplomatic Goals:

(10 points) You are not a country that is incapable of defending itself – your historical victory against Thrace is evidence of this! Still, to ensure your security against outside threats, you are seeking a defense pact with one or more states that would commit them to come to your aid with military support in the case of an attack against Caria. If you can secure such a pact – even if it is within the framework of a larger international organization – this objective will be completed.

(5 points) Your country has a history of religious fervor, and you strongly believe in the inseparability of politics and religion. Some states have tried to persuade you to make a public announcement that you will keep religion and government in different spheres, but you feel that this is blasphemy. If you can maintain your position as a theocracy (a state ruled by the immediate direction of God) you will achieve this objective.

Economic Goals:

(10 points) Some countries have tried to pressure you into signing the World Commerce Organization (WCO) protocol, which would stipulate that all countries have open access to the markets and resources of all other countries. You think that this is a ploy developed by resource-poor states to rob you of vast oil reserves that aren't rightfully theirs. If you do not sign the WCO protocol, and can convince at least one other state to join you as a non-signatory, you achieve this objective. If you sign, but manage to get the WCO protocol changed to only ensure open markets (but not open access to all resources) then you will get partial credit.

(5 points) Clearly, your country benefits greatly from its vast oil reserves. What you possess in oil, however, you lack in fishing and mineral resources. While you do not want your oil fields open to exploitation by all states in the system, you could actually use help from one country to increase the yield of your fields. Strike a bargain with ONE COUNTRY ONLY that will allow them access to your oil in exchange for either fish or mineral resources. Extra points might be given if you can get something in addition to this – such as military aid or land.

Territorial Goals:

(10 points) In order to diversify the Carian resource base, it is necessary to gain reliable access to natural resources other than oil. Toward this end, your

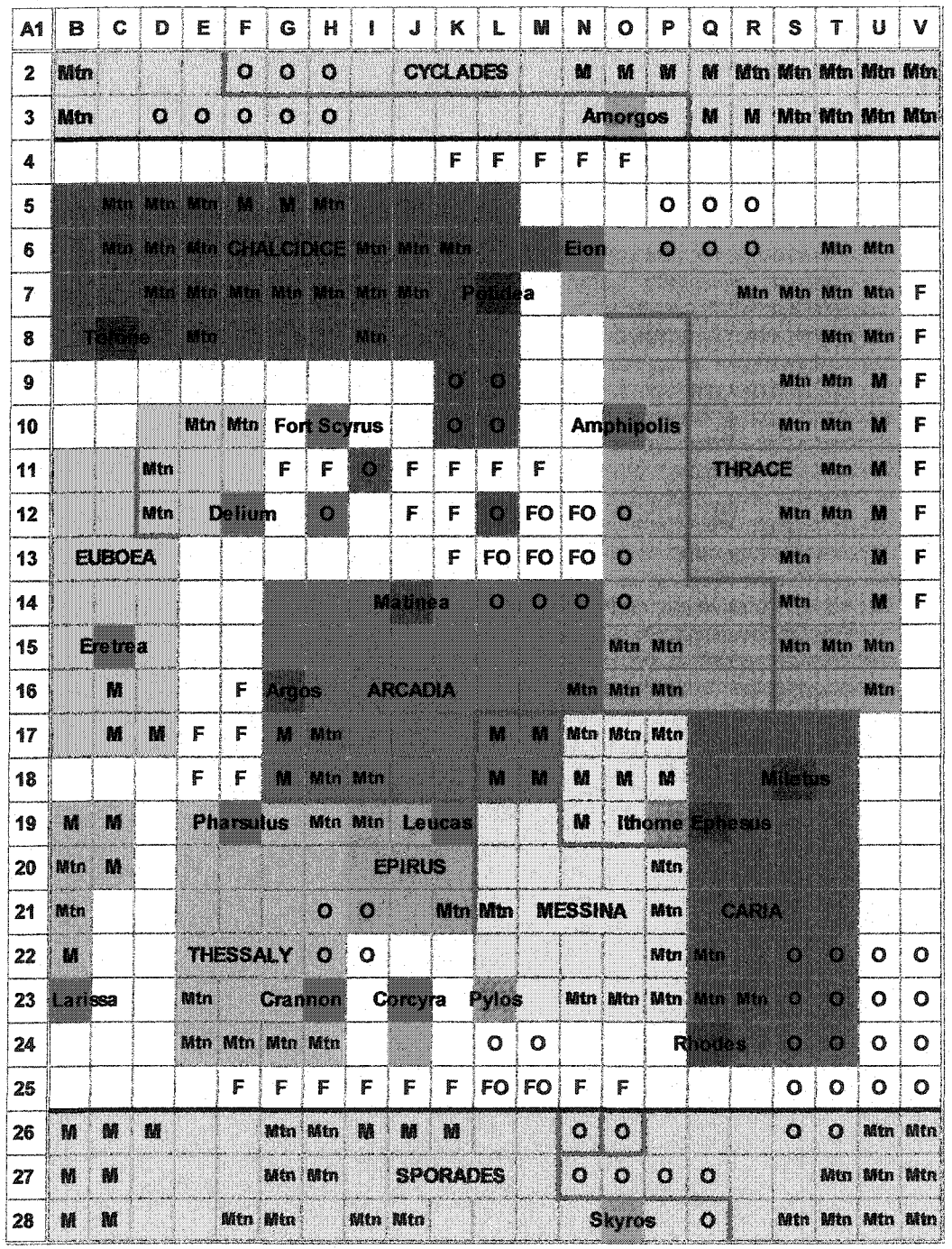
objective is to claim Sporades as Carian territory. Although other countries may still access the resources there, this privilege may be revoked at your discretion. Politically, you will assume control over the region, and it will officially be incorporated into Caria.

Subduing the barbarians in this region will require an initial devotion of 400 factors, but you may also be required to defend your new territory in the future, from both barbarians and other states in the system.

If need be, you can convince one other state to help you control and defend Sporades. You will receive 7 out of 10 points for this objective in such a case.

(5 points) Your victory in the war against Thrace resulted in the annexation of all the land between the main and southern branches of the Great Sardis River for you and the Messinites, who were your allies at the time. You have benefited greatly from this additional land and the incorporation of the great city of Miletus. Thrace has made an appeal to you to return this land to them as a symbol of the current peace between your two countries. You are intent, however, on keeping this territory (squares Q17, R17, S17, T17, Q18, R18, S18, T18, R19, S19 and T19) and you will achieve this objective if you do so!

Appendix 7: A Map of Aetolia



Appendix 8: Guidelines for Written Student Responses

INTERNATIONAL POLITICS SIMULATION REPORTS 2003

Please spend no more than 1 hour answering these questions! Typed responses are due at the beginning of next class. Make sure to briefly answer EVERY QUESTION.

Date:

Turn Number:

Name:

Country:

Role:

Question 1: **Projections**	1. Is your country a rising power or a power in decline? Why do you feel this way? 2. How many factors do you think your country will have allocated to it next turn? How many on the last turn of the game? 3. In terms of power, please rank all eight countries in the international system from 1-8 (one being the most powerful). Why is your country ranked where it is? Where will your country rank after the next turn? Where will it rank at the end of the game?
Question 2: **Objectives**	1. To date, how many objectives has your country achieved? Do you believe that you will be able to achieve any objectives on the next turn? Which one(s)? 2. How many objectives do you think your country will achieve by the end of the game? 3. What are your goals for the upcoming turn? Have these goals changed since the last turn? If so, why? 4. What are your goals for the game as a whole? Have these goals changed since the last turn? If so, why?
Question 3: **Threats**	1. How secure is your country's overall position in the game? Are you at the mercy of other countries or do you have a lot of power to throw around? Is your country becoming more or less secure as the game goes on? 2. What countries (if any) do you consider your allies? Which countries, if any, do you consider your enemy? Why? 3. What single country poses the greatest threat to your country? Why? What single country is your closest ally? Why? 4. What (or who) is the biggest threat to your country's success in this game?
Question 4: **Other Powers**	1. What country is growing in most quickly in terms of power? Which country is declining most quickly? How can you tell? Would you consider either of these countries a staunch ally or enemy? 2. How peaceful is the international system right now? Is war imminent? If yes, between which countries? What are they/you going to fight over? 3. In general, are some countries more aggressive than others? Why do you think that this is the case?

Please include any additional comments that you find relevant!!!

Appendix 9: Summary of Capability Changes in the Simulation Games

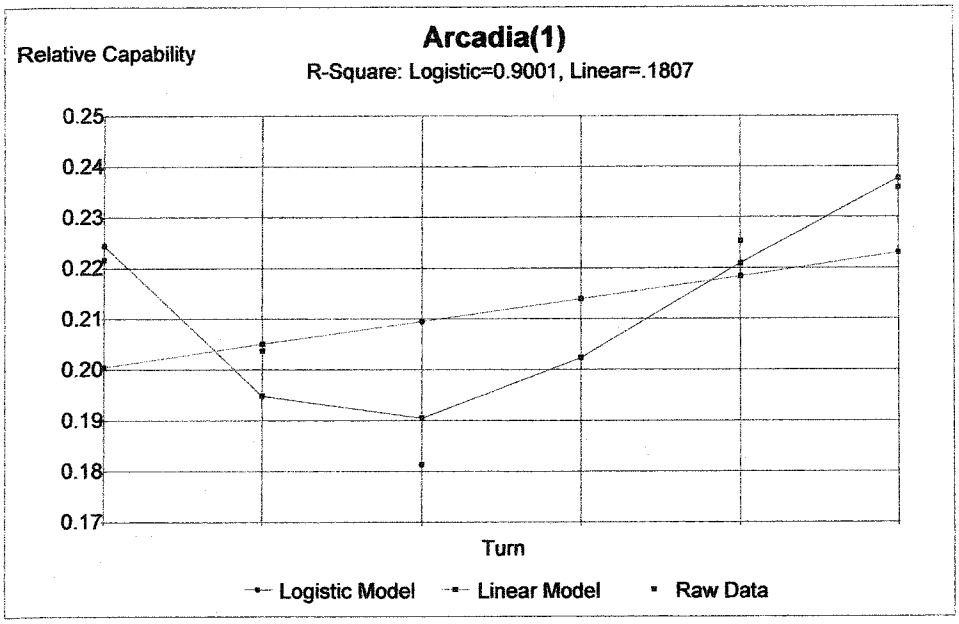
SUMMARY OF RELATIVE CAPABILITY CHANGES - GAME 1								
	Chalcidice	Thrace	Euboea	Arcadia	Messina	Caria	Thessaly	Epirus
Time 1	478	972	1654	2217	2066	1494	655	464
Relcap	4.78%	9.72%	16.54%	22.17%	20.66%	14.94%	6.55%	4.64%
Rank	7	5	3	1	2	4	6	8
Time 2	573	1,264	2,431	2,594	2,913	1,628	714	612
Relcap	4.50%	9.93%	19.10%	20.38%	22.88%	12.79%	5.61%	4.81%
Growth %	119.87%	130.04%	146.98%	117.00%	141.00%	108.97%	109.01%	131.90%
Growth	95	292	777	377	847	134	59	148
Diff.	-0.28%	0.21%	2.56%	-1.79%	2.22%	-2.15%	-0.94%	0.17%
Rank	8	5	3	2	1	4	6	7
Time 3	848	2,086	3,671	2,931	3,379	1,595	500	1,151
Relcap	5.25%	12.91%	22.72%	18.14%	20.91%	9.87%	3.09%	7.12%
Growth %	147.99%	165.03%	151.01%	112.99%	116.00%	97.97%	70.03%	188.07%
Growth	275	822	1,240	337	466	(33)	(214)	539
Diff.	0.75%	2.98%	3.62%	-2.24%	-1.98%	-2.92%	-2.52%	2.31%
Rank	7	4	1	3	2	5	8	6
Time 4	899	1,835	3,854	3,722	4,156	2,089	660	1,174
Relcap	4.89%	9.98%	20.96%	20.24%	22.60%	11.36%	3.59%	6.38%
Growth %	106.01%	87.97%	104.99%	126.99%	122.99%	130.97%	132.00%	102.00%
Growth	51	(251)	183	791	777	494	160	23
Diff.	-0.36%	-2.93%	-1.76%	2.10%	1.69%	1.49%	0.50%	-0.74%
Rank	7	5	2	3	1	4	8	6
Time 5	1,097	2,422	4,586	4,987	4,364	2,695	574	1,397
Relcap	4.96%	10.95%	20.73%	22.54%	19.73%	12.18%	2.59%	6.31%
Growth %	122.02%	131.99%	118.99%	133.99%	105.00%	129.01%	86.97%	118.99%
Growth	198	587	732	1,265	208	606	(86)	223
Diff.	0.07%	0.97%	-0.23%	2.30%	-2.87%	0.82%	-0.99%	-0.07%
Rank	7	5	2	1	3	4	8	6
Time 6	1,053	3,124	3,118	4,687	3,448	2,497	563	1,383
Relcap	5.30%	15.72%	15.69%	23.58%	17.35%	12.56%	2.83%	6.96%
Growth %	95.99%	128.98%	67.99%	93.98%	79.01%	92.65%	98.08%	99.00%
Growth	(44)	702	(1,468)	(300)	(916)	(198)	(11)	(14)
Diff.	0.34%	4.77%	-5.04%	1.04%	-2.38%	0.38%	0.24%	0.64%
Rank	7	3	4	1	2	5	8	6
Summary of Relative Capability at Various Time Points								
	Chalcidice	Thrace	Euboea	Arcadia	Messina	Caria	Thessaly	Epirus
1	4.8%	9.7%	16.5%	22.2%	20.7%	14.9%	6.6%	4.6%
2	4.5%	9.9%	19.1%	20.4%	22.9%	12.8%	5.6%	4.8%
3	5.2%	12.9%	22.7%	18.1%	20.9%	9.9%	3.1%	7.1%
4	4.9%	10.0%	21.0%	20.2%	22.6%	11.4%	3.6%	6.4%
5	5.0%	10.9%	20.7%	22.5%	19.7%	12.2%	2.6%	6.3%
6	5.3%	15.7%	15.7%	23.6%	17.4%	12.6%	2.8%	7.0%

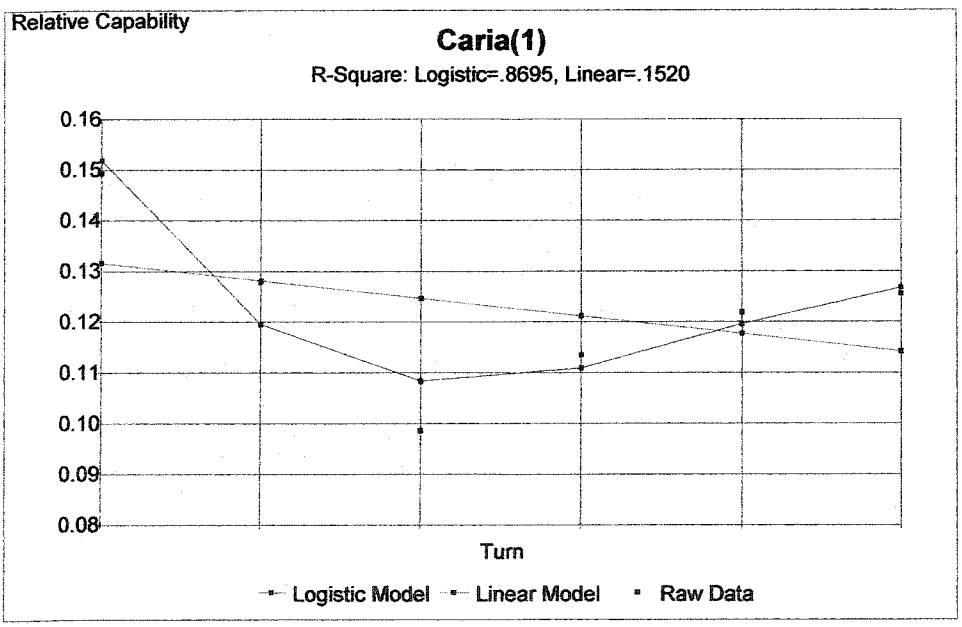
SUMMARY OF RELATIVE CAPABILITY CHANGES - GAME 2								
	Chalcidice	Thrace	Euboea	Arcadia	Messina	Caria	Thessaly	Epirus
Time 1	478	972	1654	2217	2066	1494	655	464
Relcap	4.78%	9.72%	16.54%	22.17%	20.66%	14.94%	6.55%	4.64%
Rank	7	5	3	1	2	4	6	8
Time 2	698	1,234	1,985	2,594	2,314	1,464	727	710
Relcap	5.95%	10.52%	16.93%	22.12%	19.73%	12.49%	6.20%	6.05%
Growth %	146.03%	126.95%	120.01%	117.00%	112.00%	97.99%	110.99%	153.02%
Growth	220	262	331	377	248	(30)	72	246
Diff.	1.17%	0.80%	0.39%	-0.05%	-0.93%	-2.45%	-0.35%	1.41%
Rank	8	5	3	1	2	4	6	7
Time 3	1,172	1,271	2,600	2,905	2,337	1,347	582	1,363
Relcap	8.63%	9.36%	19.15%	21.40%	17.21%	9.92%	4.29%	10.04%
Growth %	167.91%	103.00%	130.98%	111.99%	100.99%	92.01%	80.06%	191.97%
Growth	474	37	615	311	23	(117)	(145)	653
Diff.	2.68%	-1.16%	2.22%	-0.73%	-2.52%	-2.56%	-1.91%	3.98%
Rank	7	6	2	1	3	5	8	4
Time 4	1,582	1,890	2,860	3,283	2,804	754	629	1,731
Relcap	10.18%	12.17%	18.41%	21.14%	18.05%	4.85%	4.05%	11.14%
Growth %	134.98%	148.70%	110.00%	113.01%	119.98%	55.98%	108.08%	127.00%
Growth	410	619	260	378	467	(593)	47	368
Diff.	1.55%	2.81%	-0.74%	-0.26%	0.84%	-5.07%	-0.24%	1.10%
Rank	6	4	2	1	3	7	8	5
Time 5	854	2,366	3,117	2,988	3,197	1,252	579	1,731
Relcap	5.31%	14.71%	19.38%	18.58%	19.88%	7.78%	3.60%	10.76%
Growth %	53.98%	125.19%	108.99%	91.01%	114.02%	166.05%	92.05%	100.00%
Growth	(728)	476	257	(295)	393	498	(50)	0
Diff.	-4.88%	2.54%	0.97%	-2.56%	1.83%	2.93%	-0.45%	-0.38%
Rank	7	4	2	3	1	6	8	5
Time 6	1,230	2,839	3,273	3,197	3,677	1,440	469	1,766
Relcap	6.87%	15.87%	18.29%	17.87%	20.55%	8.05%	2.62%	9.87%
Growth %	144.03%	119.99%	105.00%	106.99%	115.01%	115.02%	81.00%	102.02%
Growth	376	473	156	209	480	188	(110)	35
Diff.	1.57%	1.16%	-1.09%	-0.71%	0.68%	0.26%	-0.98%	-0.89%
Rank	7	4	2	3	1	6	8	5

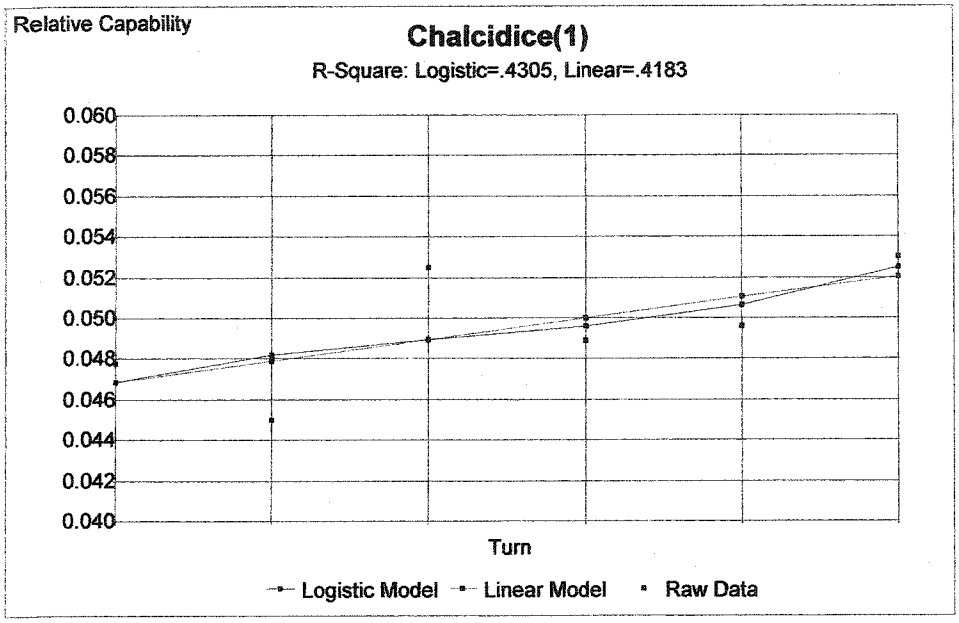
Summary of Relative Capability at Various Time Points								
	Chalcidice	Thrace	Euboea	Arcadia	Messina	Caria	Thessaly	Epirus
1	4.8%	9.7%	16.5%	22.2%	20.7%	14.9%	6.6%	4.6%
2	6.0%	10.5%	16.9%	22.1%	19.7%	12.5%	6.2%	6.1%
3	8.6%	9.4%	19.2%	21.4%	17.2%	9.9%	4.3%	10.0%
4	10.2%	12.2%	18.4%	21.1%	18.1%	4.9%	4.0%	11.1%
5	5.3%	14.7%	19.4%	18.6%	19.9%	7.8%	3.6%	10.8%
6	6.9%	15.9%	18.3%	17.9%	20.6%	8.0%	2.6%	9.9%

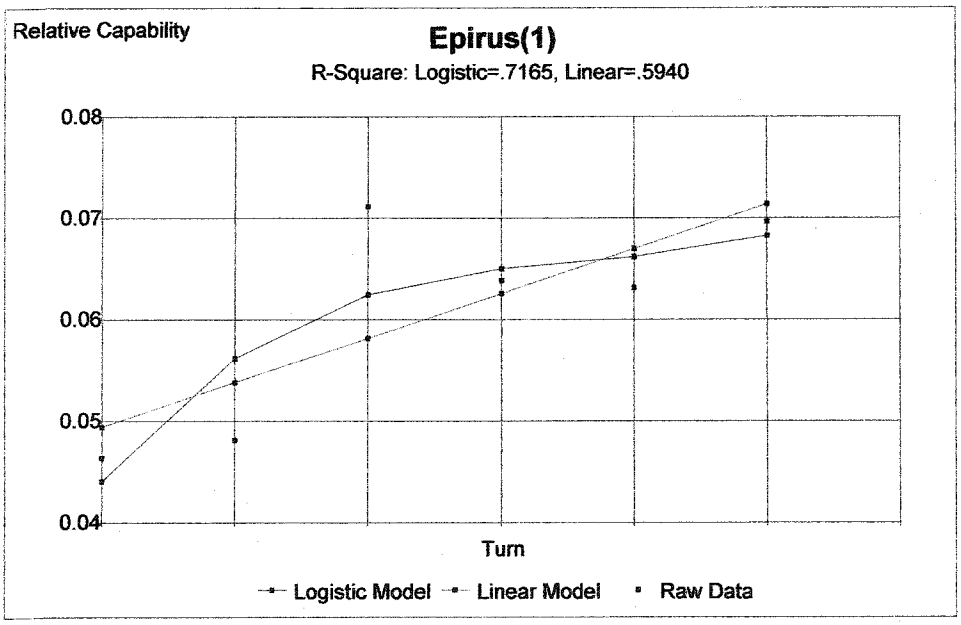
SUMMARY OF RELATIVE CAPABILITY CHANGES - GAMES 3&4								
	Chalcidice	Thrace	Euboea	Arcadia	Messina	Caria	Thessaly	Epirus
Time 1	478	972	1654	2217	2066	1494	655	464
Relcap	4.78%	9.72%	16.54%	22.17%	20.66%	14.94%	6.55%	4.64%
Rank	7	5	3	1	2	4	6	8
Time 2	574	1,409	1,902	2,550	2,066	1,419	655	650
Relcap	5.11%	12.56%	16.95%	22.71%	18.41%	12.64%	5.84%	5.79%
Growth %	120.00%	145.00%	115.00%	115.00%	100.00%	95.00%	100.00%	140.00%
Growth	96	437	248	333	0	(75)	0	186
Diff.	0.33%	2.84%	0.41%	0.54%	-2.25%	-2.30%	-0.71%	1.15%
Rank	8	5	3	1	2	4	6	7
Time 3	717	1,832	2,378	2,677	2,128	1,277	590	1,202
Relcap	5.60%	14.31%	18.57%	20.91%	16.62%	9.98%	4.61%	9.39%
Growth %	125.00%	130.00%	125.00%	105.00%	103.00%	90.00%	90.00%	185.00%
Growth	143	423	476	127	62	(142)	(66)	552
Diff.	0.49%	1.76%	1.63%	-1.80%	-1.78%	-2.67%	-1.23%	3.60%
Rank	7	4	2	1	3	5	8	6
Time 4	1,004	2,290	3,210	2,543	2,288	1,086	472	2,404
Relcap	6.56%	14.97%	20.99%	16.63%	14.96%	7.10%	3.08%	15.71%
Growth %	140.00%	125.00%	135.00%	95.00%	107.50%	85.00%	80.00%	200.00%
Growth	287	458	832	(134)	160	(192)	(118)	1,202
Diff.	0.96%	0.66%	2.41%	-4.29%	-1.67%	-2.88%	-1.52%	6.33%
Rank	7	5	1	2	4	6	8	3
Time 5	1,606	2,061	4,654	2,035	2,745	727	448	3,365
Relcap	9.10%	11.68%	26.38%	11.53%	15.56%	4.12%	2.54%	19.07%
Growth %	160.00%	90.00%	145.00%	80.00%	120.00%	67.00%	95.00%	140.00%
Growth	602	(229)	1,444	(509)	458	(358)	(24)	961
Diff.	2.54%	-3.29%	5.40%	-5.09%	0.60%	-2.98%	-0.54%	3.36%
Rank	6	4	1	5	3	7	8	2
Time 6	2,891	1,546	7,214	1,322	3,980	218	470	4,374
Relcap	13.13%	7.02%	32.77%	6.01%	18.08%	0.99%	2.14%	19.87%
Growth %	180.00%	75.00%	155.00%	65.00%	145.00%	30.00%	105.00%	130.00%
Growth	1,285	(515)	2,560	(712)	1,235	(509)	22	1,009
Diff.	4.03%	-4.66%	6.38%	-5.53%	2.52%	-3.13%	-0.40%	0.79%
Rank	4	5	1	6	2	7	8	3
Summary of Relative Capability at Various Time Points								
	Chalcidice	Thrace	Euboea	Arcadia	Messina	Caria	Thessaly	Epirus
1	4.8%	9.7%	16.5%	22.2%	20.7%	14.9%	6.6%	4.6%
2	5.1%	12.6%	16.9%	22.7%	18.4%	12.6%	5.8%	5.8%
3	5.6%	14.3%	18.6%	20.9%	16.6%	10.0%	4.6%	9.4%
4	6.6%	15.0%	21.0%	16.6%	15.0%	7.1%	3.1%	15.7%
5	9.1%	11.7%	26.4%	11.5%	15.6%	4.1%	2.5%	19.1%
6	13.1%	7.0%	32.8%	6.0%	18.1%	1.0%	2.1%	19.9%

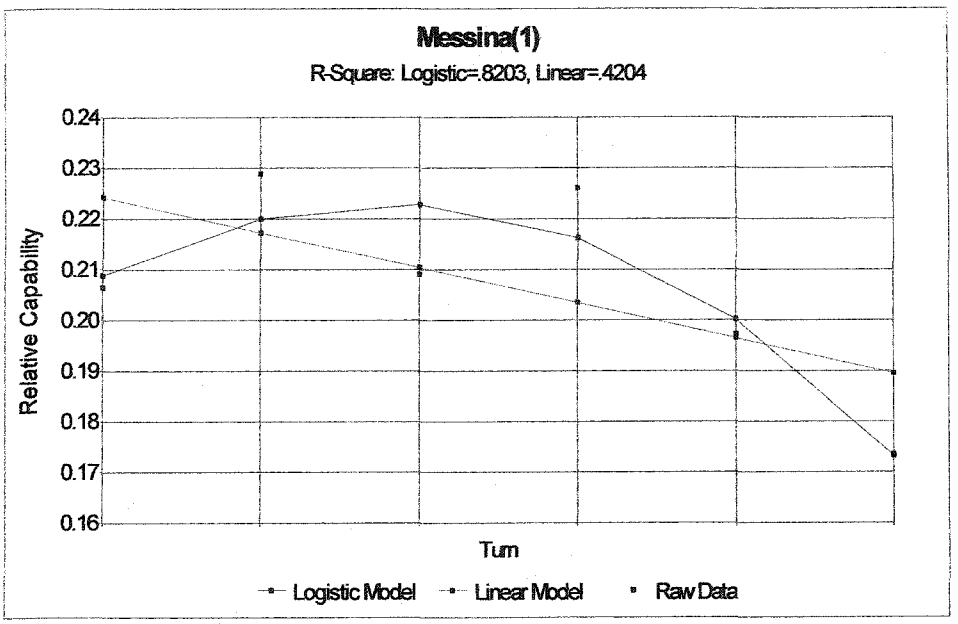
Appendix 10: Visualizing Relative Capability Cycles in Aetolia; Games 1 & 2

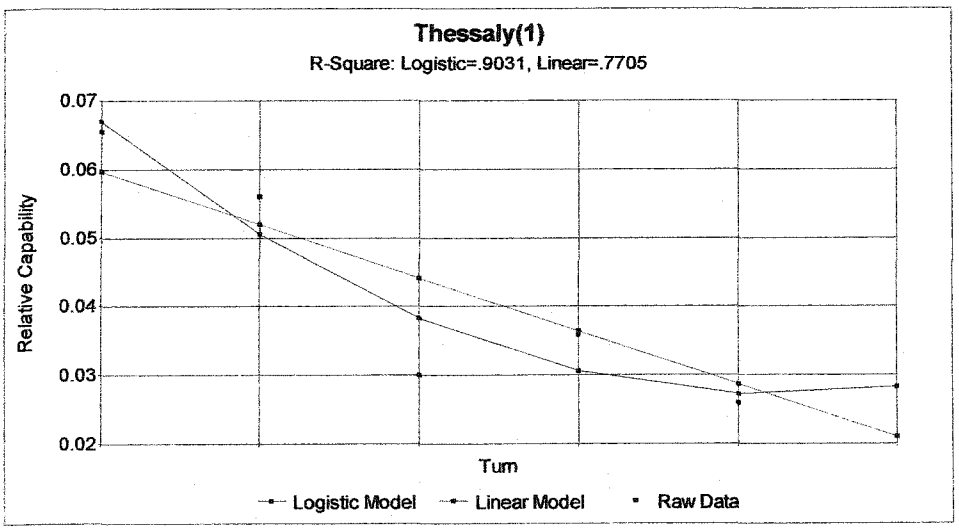


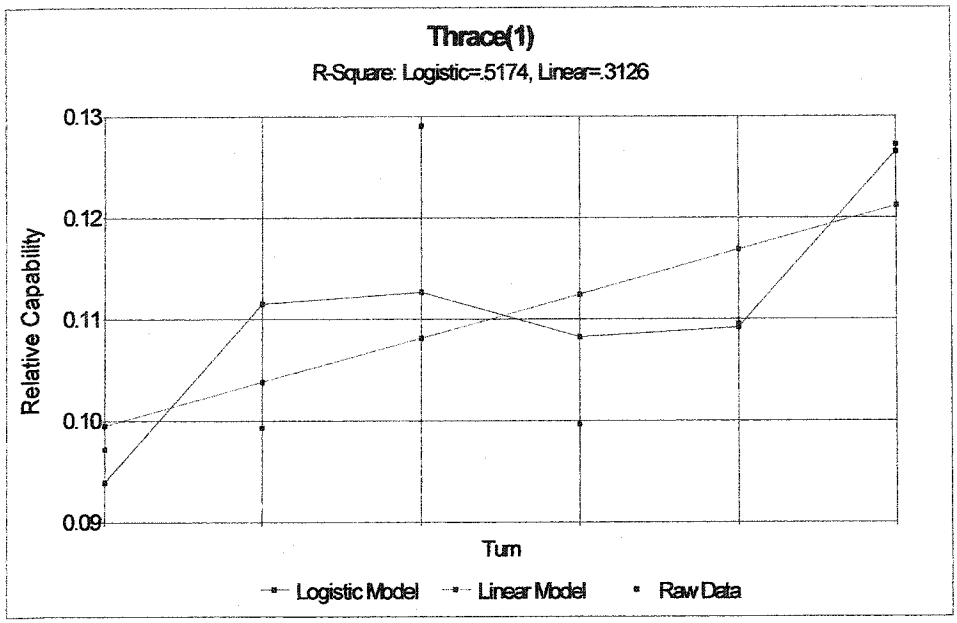


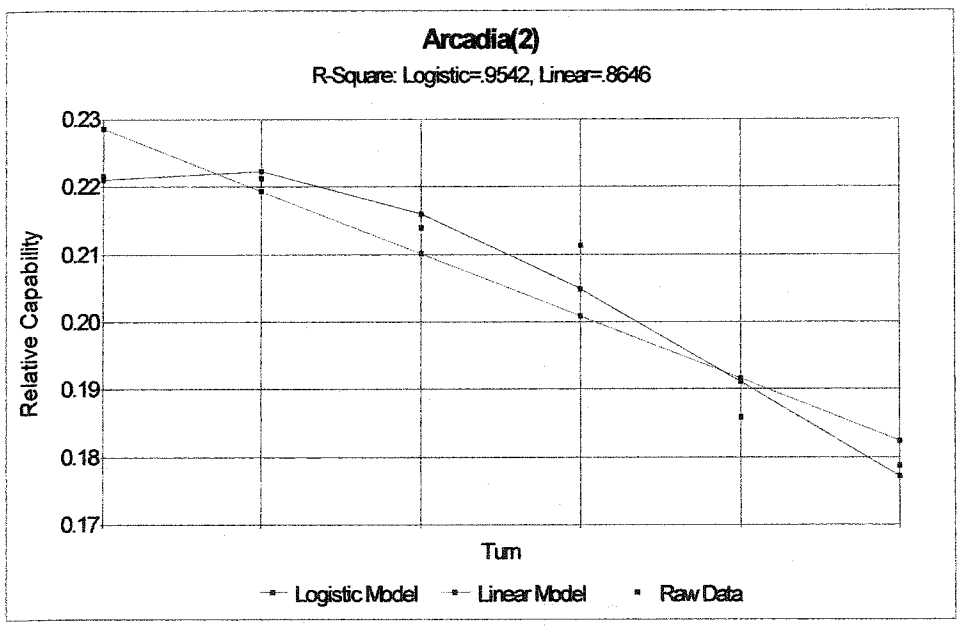


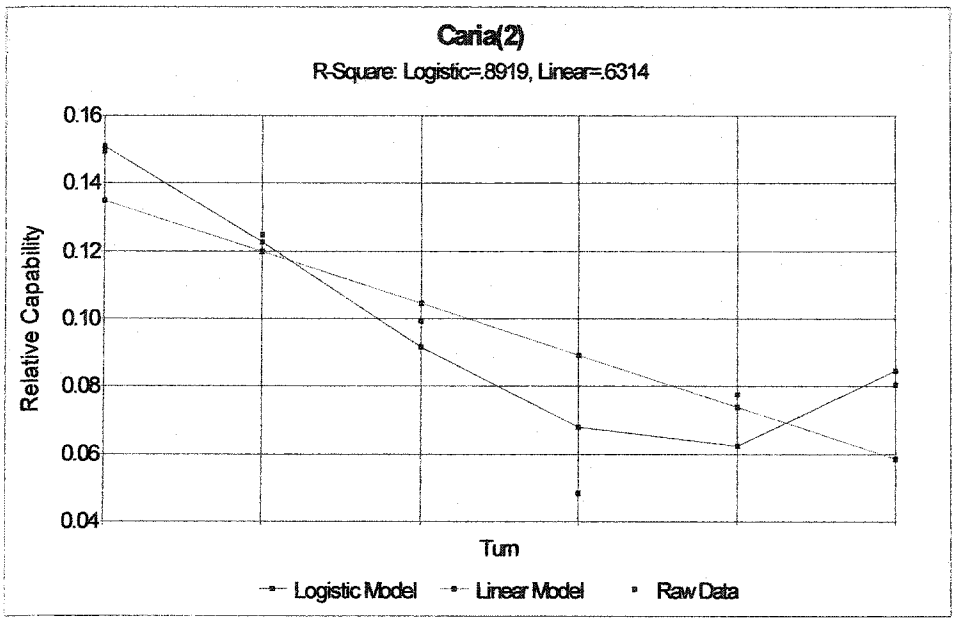


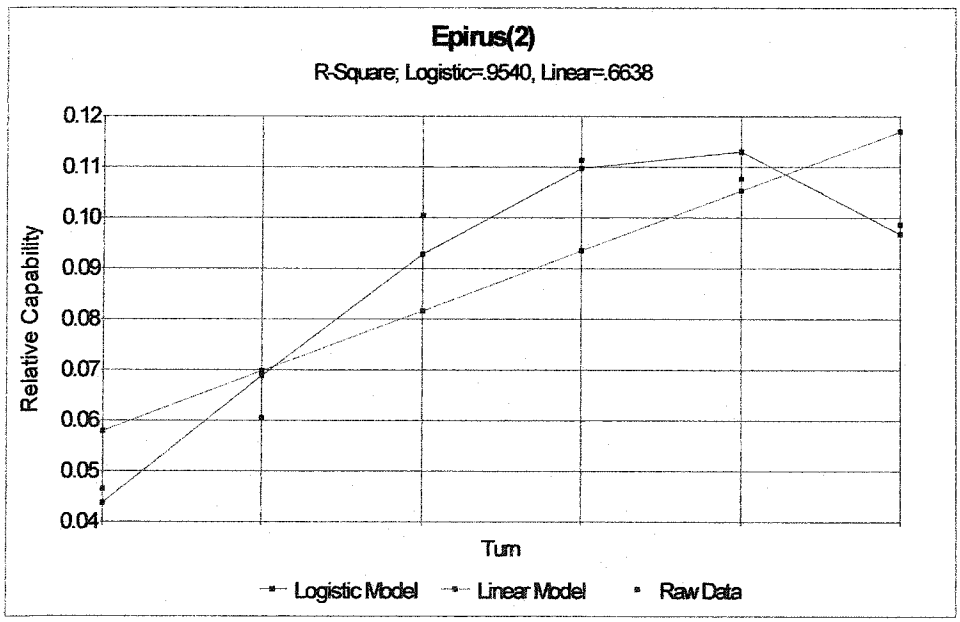


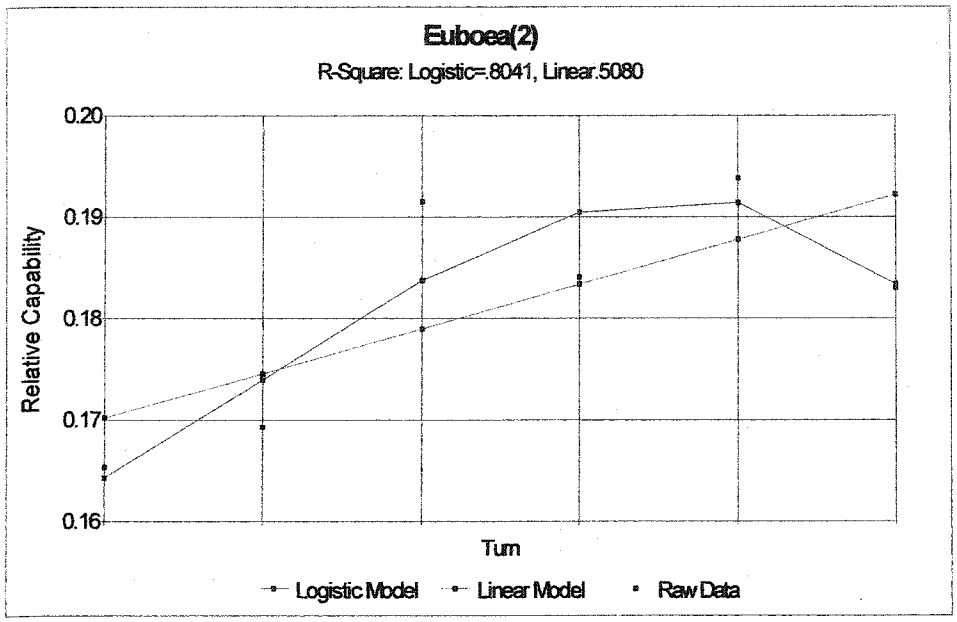


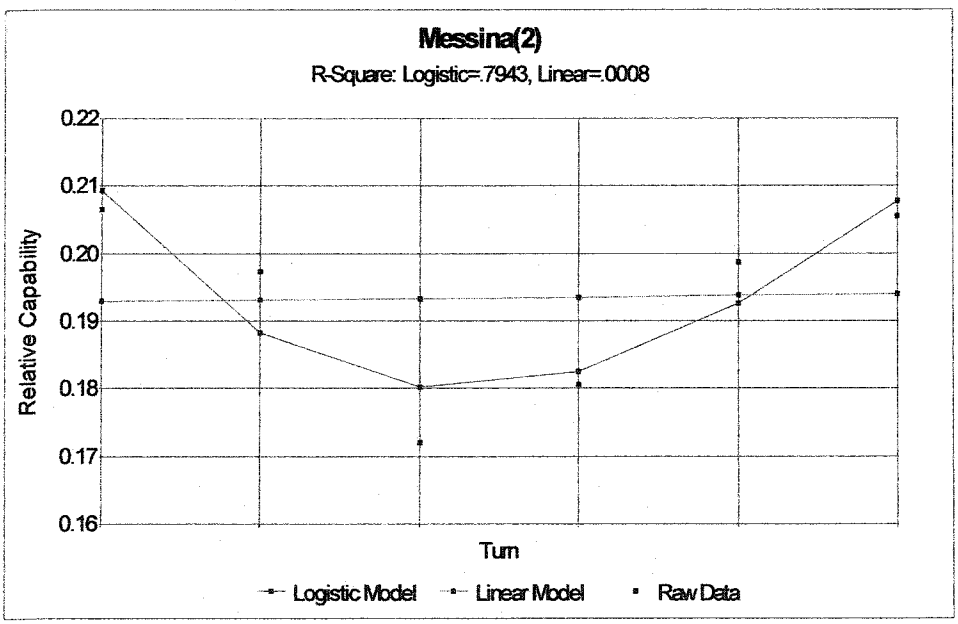


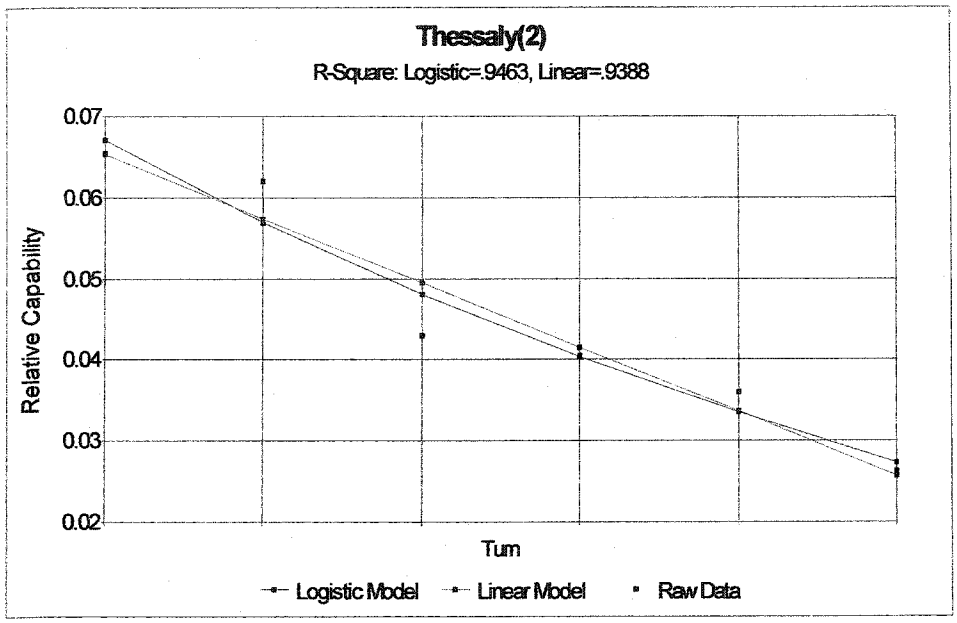


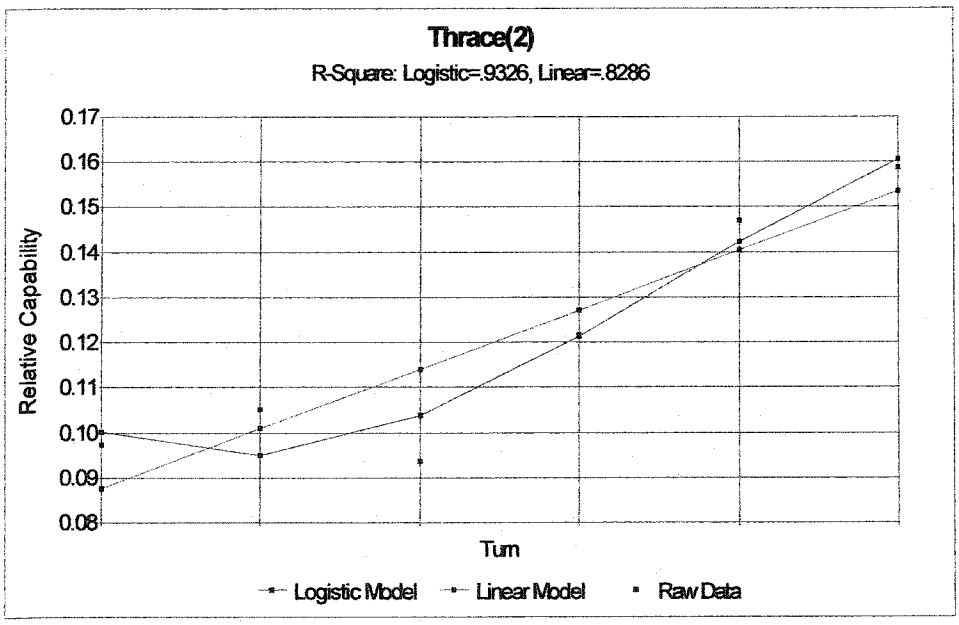












Appendix 11: Comparing Logistic and Linear Fits for Relative Power Cycles in Aetolia

Country	Cyclical Pattern?	R-Square		Best Fit	Adjusted R-Square		Best Fit
Arcadia(1)	Yes	Logistic	.9001	Logistic	Logistic	.7502	Logistic
		Linear	.1807		Linear	-.0241	
Arcadia(2)	Yes	Logistic	.9542	Logistic	Logistic	.8855	Logistic
		Linear	.8696		Linear	.8371	
Caria(1)	Yes	Logistic	.8695	Logistic	Logistic	.6738	Logistic
		Linear	.1520		Linear	-.0600	
Caria(2)	Yes	Logistic	.8919	Logistic	Logistic	.7297	Logistic
		Linear	.6314		Linear	.5392	
Chalcidice(1)	No	Logistic	.4305	Logistic	Logistic	-.4238	Linear
		Linear	.4183		Linear	.2729	
Chalcidice(2)	Yes	Logistic	.5252	Logistic	Logistic	-.1870	Linear
		Linear	.0670		Linear	-.1662	
Epirus(1)	No	Logistic	.7165	Logistic	Logistic	.2912	Linear
		Linear	.5940		Linear	.4925	
Epirus(2)	Yes	Logistic	.9540	Logistic	Logistic	.8851	Logistic
		Linear	.6638		Linear	.5797	
Euboea(1)	Yes	Logistic	.9725	Logistic	Logistic	.9312	Logistic
		Linear	.2528		Linear	.0660	
Euboea(2)	Yes	Logistic	.8041	Logistic	Logistic	.5103	Logistic
		Linear	.5080		Linear	.3850	
Messina(1)	Yes	Logistic	.8203	Logistic	Logistic	.5508	Logistic
		Linear	.4104		Linear	.2630	
Messina(2)	Yes	Logistic	.7943	Logistic	Logistic	.4858	Logistic
		Linear	.0008		Linear	-.2490	
Thessaly(1)	Yes	Logistic	.9031	Logistic	Logistic	.7577	Logistic
		Linear	.7705		Linear	.7132	
Thessaly(2)	No	Logistic	.9463	Logistic	Logistic	.8657	Linear
		Linear	.9388		Linear	.9235	
Thrace(1)	Yes	Logistic	.5174	Logistic	Logistic	-.2065	Linear
		Linear	.3126		Linear	.1408	
Thrace(2)	Yes	Logistic	.9236	Logistic	Logistic	.8316	Logistic
		Linear	.8286		Linear	.7858	
Totals and Averages	13/16	Logistic	.8077	16/16	Logistic	.5207	11/16
		Linear	.4750		Linear	.3437	

Appendix 12: Summarizing and Evaluating the Propositions

Propositions from the Statistical Analysis

Proposition 1: The mean severity of interstate wars initiated by major powers during critical periods will be significantly higher than the mean severity of all other wars. **(Strong Support)**

Proposition 2: During critical periods, the rate of interstate war participation (regardless of role as initiator or defender) for major powers will be significantly higher than the rate of interstate war participation by those same countries during non-critical periods. **(Strong Support)**

Proposition 3: Rates of interstate war initiation will also be significantly higher for major powers during critical periods than during remaining times. **(Strong Support)**

Proposition 4: Major power involvement in deterrence encounters will be significantly more likely during critical periods than it is at remaining times. **(Strong Support)**

Proposition 5: During critical periods, major powers will be significantly more prone to initiating deterrence challenges than they are during non-critical periods. **(Strong Support)**

Proposition 6: Deterrence encounters will have a significantly higher chance of escalating to war if at least one of the major powers involved is passing through a critical period. **(Strong Support)**

Proposition 7: When passing through the high turning point (H) on their relative capability cycle, major powers will be more prone to conflict behavior (as defined by war participation, war initiation, deterrence involvement and deterrence challenges) than when they pass through the remaining three critical periods. **(Mixed Support)**

Proposition 8: The two inflection points (I_1 and I_2) will lead to roughly equal rates of conflict (as defined by Hypothesis 7), although the first inflection point should rank slightly higher because of the relatively greater attention leaders place on rate as an indicator of domains of loss versus gain. **(Mixed Support)**

Proposition 9: The low turning point will generate the lowest overall rate of participation in, and initiation of major power war and deterrence encounters. **(Mixed Support)**

Proposition10: While passing through critical periods on the upward slope of their relative capability cycle (H and I_1), states will exhibit more conflict behavior than when they are passing through the periods on the downward portion of their cycle (L and I_2). **(Strong Support)**

Proposition11: If democratic leaders are less susceptible to the pitfalls of critical periods, democracies should exhibit an overall rate of monadic conflict behavior (as defined by war participation, war initiation, deterrence involvement and deterrence challenges) that is significantly lower than that of their autocratic counterparts. Furthermore, the conflict behavior of democratic leaders will not be affected by critical periods in any significant manner.

Conversely, autocracies will engage in significantly more interstate conflict during critical periods than they will at all other times. **(Strong Support)**

Propositions from the International Politics Simulation

Proposition1: Over time, countries will experience changes in relative capability share that are characterized by periods of growth, maturation, decline and then rebirth. **(Strong Support)**

Proposition 2: This pattern of change is best represented by the logistic growth function proposed by power cycle theory. **(Strong Support)**

Proposition 3: Simulated states that are experiencing a critical period will be significantly more likely to participate in a war during that period than they would be during remaining periods. **(Strong Support)**

Proposition 4: Simulated states that are experiencing a critical period will be significantly more likely to initiate a war during that period than they would be during remaining periods. **(Mixed Support)**

Proposition 5: Wars in Aetolia that occur during critical periods will be significantly more severe (defined by the amount of resources devoted to the war) than wars that occur during remaining periods. **(No Support)**

Proposition 6: Truly global wars will only occur when at least half of the states in Aetolia are simultaneously experiencing critical periods. It is at these times that system change is most radical, and instability is most pervasive. **(Mixed Support)**